

Programmes in Humanities,  
Social Sciences and Natural Sciences

Arts  
&  
Science

## Index

Programmes & Admission Requirements . . . . .	2
Degree Requirements . . . . .	6
Departments & Programmes . . . . .	6
Applied Social Science . . . . .	7
Biological Sciences . . . . .	8
Canadian Studies . . . . .	9
Chemistry . . . . .	10
Classics . . . . .	11
Communication Studies . . . . .	12
Economics . . . . .	13
Education . . . . .	14
English . . . . .	15
Etudes Françaises . . . . .	17
Exercise Science . . . . .	19
Geography . . . . .	20
Geology . . . . .	21
History . . . . .	23
Individually Structured Programme . . . . .	24
Journalism . . . . .	25
Library Studies . . . . .	26
Mathematics . . . . .	26
Modern Languages and Linguistics . . . . .	28
Philosophy . . . . .	29
Physics . . . . .	30
Political Science . . . . .	31
Psychology . . . . .	33
Recreation and Leisure Studies . . . . .	34
Religion . . . . .	35
Russian Studies . . . . .	36
Science and Human Affairs . . . . .	36
Sociology and Anthropology . . . . .	37
Teaching of English as a Second Language . . . . .	39
Theological Studies . . . . .	40
Urban Studies . . . . .	40
Women's Studies . . . . .	41
Colleges . . . . .	42
Centre for Mature Students . . . . .	42
Institute for Co-operative Education . . . . .	43
Liberal Arts College . . . . .	44
Loneragan University College . . . . .	44
School of Community and Public Affairs . . . . .	45
Science College . . . . .	46
Simone de Beauvoir Institute . . . . .	46
Directory . . . . .	48

## The Faculty of Arts and Science

The Faculty of Arts and Science includes the Humanities, the Natural Sciences and the Social Sciences. Some forty areas of study, ranging from traditional disciplines to the new and innovative, come within a single structure, and so create a very stimulating learning environment.

The Faculty believes that a good education should combine breadth and depth, while enabling each student to follow the programme that best answers his or her personal or professional goals. For some, this will mean working in several disciplines; for others, concentrating on the foundations of a career or vocation in conjunction with selected studies that will extend their knowledge and their understanding.

An education in Arts and Science at Concordia has prepared many students for advanced studies at graduate schools in both Canada and the United States. Among the Faculty's own master's and doctoral programmes are several that have gained national and international recognition.

A fundamental tradition at Concordia is a special concern for part-time and mature students. Apart from Communication Studies where laboratory requirements require full-time study, all students, part-time and full-time, work towards the same degree, with the same professors, in the same classes and laboratories.

A unique feature of Concordia's Arts and Science Faculty is its colleges, which

provide a home locale for students concerned with a particular domain of study or philosophy of education. The colleges have their own academic programmes that can be integrated into a student's area of concentration. Each is housed in its own premises which serve as a meeting place for the faculty, known as Fellows of the College, and the students who have chosen its particular orientation.

We are living in a period of rapid, and at times furious, change. An Arts and Science degree will help you develop the ability to deal with change, to make the most out of it. In the Concordia Faculty of Arts and Science, you will find both a personal education and individually organized programmes that respond to the challenge of our times.

For advice and assistance in developing your programme you should get in touch with one of the departments listed on page 47.

# Faculty of Arts and Science

## Programmes & Admission Requirements

Bachelor of Arts (B.A.)	Profile	Special Req.	Page	Bachelor of Arts (B.A.)	Profile	Special Req.	Page
Anthropology	0.00		37	Modern Languages —			28
Anthropology & Sociology				German	10.5		
Applied Social Science ▲	0.00		7	Hebrew	10.5		
Social Welfare	0.00			Italian	10.5		
Canadian Studies	0.00		9	Russian	10.5		
Child Studies ▲	0.00		14	Spanish	10.5		
Classical Archaeology	0.00		11	Philosophy	0.00		29
Classical Philology	0.00			Political Philosophy	0.00		
Classical Studies	0.00			Political Science	0.00		31
Communication Studies ▲	0.00	A,K	12	Political Sociology	0.00		
Broadcast Journalism ▲	0.00	A,K,Q		Psychology (also B.Sc.)	10.1		32
Communication & Journalism ▲	0.00	A,K,Q		Quebec Literature (French)	0.00		17
Creative Writing	0.00	K	15	Recreation & Leisure Studies ▲	10.1		34
Economics** (Also B. Comm.)	0.00		13	Religion	0.00		34
Education	0.00		14	Bi-university Judaic Studies	0.00		
Child Studies ▲	0.00			Judaic Studies	0.00		
Early Childhood Education ▲	0.00	A		Russian Studies	0.00		36
English	0.00		15	Science and Human Affairs	0.00		36
Creative Writing	0.00	K		Social Welfare	0.00		7
English Dramatic Literature	0.00			Sociology	0.00		37
English & French	0.00			Political Sociology	0.00		
English & History	0.00			Theological Studies	0.00		40
English Language	0.00			Translation	0.00		17
English Literature	0.00			French/English Translation	0.00		
French — Etudes Françaises			17	Language & Translation (Fr./Eng.)	0.00		
French & English	0.00			Urban Studies	0.00		40
French/English Translation ▲	0.00			Western Society & Culture	0.00	A	44
French Language	0.00			Women's Studies	0.00		41
Language & Translation (French/Eng.)	0.00						
French Literature	0.00						
Quebec Literature	0.00						
Geography (also B.Sc.)			20				
Human	0.00						
Man-Environment Relationships	0.00						
Physical	0.00						
History	0.00		23				
History & English	0.00						
History of Quebec	0.00						
Individually Structured Programme (also B.Sc.)			25				
Journalism ▲	0.00	A,Q	25				
Broadcast Journalism ▲	0.00	A,K,Q					
Communication & Journalism ▲	0.00	A,K,Q					
Judaic Studies	0.00		34				
Library Studies	0.00		26				
Linguistics	0.00		28				
Mathematics (also B.Sc.)**	10.12		26				
Actuarial Mathematics (also B.Sc.)	10.12						
Applied Mathematics (also B.Sc.)	10.12						
Statistics (also B.Sc.)	10.12						

## Programmes & Admission Requirements

Bachelor of Education (B.Ed.)	Profile	Special Req.	Page
Teaching of English as a Second Language	0.00	N,P,Q	39
Bachelor of Science (B.Sc.)	Profile	Special Req.	Page
Biology (including Botany, Cell & Molecular Biology, Ecology and Zoology)	10.9		9
Chemistry**	10.9		10
Analytical Chemistry	10.9		
Bio-Chemistry	10.9		
Bio-Chemistry with Medicinal Chemistry Component	10.9		
Exercise Science▲	10.9		19
Options within the Specialization:			
Sports Science			
Therapeutic Activity	10.9		
Pre-Research			
Community Fitness Science			
Geography (also B.A.)			20
Environmental Geography	10.9		
Geoscience	10.9		
Hydrology	10.9		
Geology	10.9		21
Geology/Chemistry	10.9		
Geology/Physics	10.9		
Resource Analysis & Land Use	10.9		
Individually Structured Programme (also B.A.)			
Mathematics** (also B.A.)	10.10		26
Actuarial Mathematics (also B.A.)	10.10		
Applied Mathematics (also B.A.)	10.10		
Statistics (also B.A.)	10.10		
Physics	10.10		30
Physics/Marketing	10.10		
Psychology (also B.A.)	10.9		32
Psychobiology option within Honours & Specialization	10.9		

▲ Programmes subject to limited enrollments in 1983-84

\*\*Also Co-operative programme.

### Certificate Programmes

Besides the basic degree programmes mentioned above, there are in several disciplines and fields certificate programmes. These consist of a minimum of 30 credits made up of regular undergraduate courses, which are, in turn, normally applicable to appropriate Bachelor's degrees.

Certificates	Profile	Special Req.	Page
Adult Education	0.10		14
Community Service	0.00		7
Education (Secondary Level)	0.80		14
Family Life Education	0.00		7
French Language	0.00		17
History of Quebec	0.00		23
Judaic Studies	0.00		34
Library Studies	0.00		26
Mathematics for Teachers	0.72		26
Options:			
Elementary School Level			
Junior Secondary School Level			
Outdoor Education	0.00		19
Scientific Measurement	10.10		30
Options:			
Biology	10.10		
Chemistry	10.10		
Physics	10.10		
Teaching of English as a Second Language	0.72		39
Teaching of Science (Elementary School Level)	0.72		
Women's Studies	0.00		41

### Colleges, Institutes and Schools:

When you apply for admission to a bachelor's degree programme offered by the Faculty of Arts and Science, you may also apply to enroll in one of its Colleges. These offer a more personalized approach to education. Details will be found in the section entitled *Colleges*, beginning on p. 42.

	Page
Centre for Mature Students	42
Institute for Co-operative Education	43
Liberal Arts College	44
Loneragan University College	45
School of Community and Public Affairs	45
Science College	46
Simone de Beauvoir Institute	46

## Graduate Studies

### Doctoral Programmes Ph.D.

Chemistry  
Economics  
Educational Technology  
History  
Humanities  
Physics  
Psychology  
Religion

### Master's Programmes

#### M.A./M.Sc.

Applied Linguistics  
Biological Sciences  
Chemistry  
Economics  
Educational Studies  
Educational Technology  
English  
History  
Judaic Studies  
Mathematics  
Media Studies  
Philosophy  
Physics  
Psychology (Applied or  
General Experimental)  
Public Policy & Public  
Administration  
Religion  
Sociology  
Teaching Mathematics

### Diploma Programmes

Communication Studies  
Community Politics and the Law  
Computer Assisted Learning  
Early Childhood Education  
English  
Instructional Technology  
Library Studies  
Teaching Mathematics  
Theological, Religious and  
Ethical Studies  
Writing/Translation

## Admission Requirements

Successful completion of a two-year pre-University or a three-year professional programme in a CEGEP with the award of a Diploma of Collegial Studies (DEC) or the equivalent, including the specific courses required by the various programmes as indicated on pages 2 & 3.

0.00 No specific courses are required beyond the D.E.C. (General or Professional)

10.1 Mathematics 337 — Statistics *or*  
(Mathematics 103 — Calculus I, and Mathematics 307 — Intro. to Mathematical Probability Theory)  
(Biology 301 — General Biology I and Biology 401 — General Biology II) *or* Biology 921 — Human Biology II  
Psychology 102 — Introductory Psychology

10.5 To have reached in the language to be studied, a level equal to that of 2 CEGEP courses. If these courses have not been taken at CEGEP, the University may require the student to take and pass make-up courses.

10.9 Mathematics 103 — Calculus I  
Mathematics 203 — Calculus II  
Physics 101 — Mechanics  
Physics 201 — Electricity & Magnetism  
Physics 301 — Waves & Modern Physics  
Chemistry 101 — General Chemistry I  
Chemistry 201 — General Chemistry II  
Biology 301 — General Biology I

10.10 Mathematics 103 — Calculus I  
Mathematics 105 — Introduction to Linear Algebra  
Mathematics 203 — Calculus II  
Physics 101 — Mechanics  
Physics 201 — Electricity & Magnetism  
Physics 301 — Waves & Modern Physics  
Chemistry 101 — General Chemistry I  
Chemistry 201 — General Chemistry II  
Biology 301 — General Biology I

10.12 Mathematics 103 — Calculus I  
105 — Introduction to Linear Algebra  
203 — Calculus II

0.10 {  
0.72 A D.E.C. or the equivalent and an appropriate teaching  
0.80 certificate or experience in a related field.

A = Interview

K = Submit Portfolio of Personal Work

N = English Proficiency Test

P = Knowledge of written and spoken French as determined by a placement or admissions test, the results of which could lead to a refusal to admit to the programme in question or to the imposition of specified make-up courses.

Q = Knowledge of written and spoken English, as determined by a placement or admissions test, the results of which could lead to a refusal to admit to the programme in question or to the imposition of specified make-up courses.

#### Applicants from other Canadian Provinces

Province	Requirements	Admitted to	Length of Programmes
Alberta	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
British Columbia	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
New Brunswick	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
Newfoundland	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
Nova Scotia	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
Manitoba	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
Ontario	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
	Grade XIII 65%	Undergraduate Degree 90 cr.	3 years
Prince Edward Island	Grade XII 65%	Extended Credit Programme 120 cr.	4 years
Saskatchewan	Grade XII 65%	Extended Credit Programme 120 cr.	4 years

While the University is flexible regarding entrance papers and no set pattern of High School courses is required, the courses presented should be in keeping with the profile listed on page 2 & 3.

#### Transfers from other Universities

Applicants transferring from other accredited universities will be considered for an appropriate level of placement in the undergraduate programme at this University.

The number of credits awarded depends on the character, quality and quantity of the work completed.

#### Transfers from other Post-Secondary Institutions

Credits obtained in junior colleges, community colleges or Colleges of Applied Arts and Technology outside Quebec will in general be given the same recognition towards undergraduate programmes as they would receive in their respective provinces.

#### Mature Students

Concordia has for many years made it possible for men and women of 21 years of age or over, who have interrupted their studies, to undertake work towards university degrees and certificates, although they lack the normally required pre-university schooling.

Mature entrants are expected to demonstrate the potential to follow undergraduate courses, and are required to complete successfully a minimum of 18 additional credits over and above those required of students who enter with the regular qualifications. Mature entrants are, however, considered and treated in every way as undergraduates.

To advise and assist both prospective and enrolled students in dealing with academic requirements and other problems, the Faculty of Arts and Science maintains a Mature Student Centre with offices and facilities on both campuses. Other faculties have their own mechanisms for advising students.

## Degree Requirements

### Requirements for the B.A. and B.Sc. degrees:

If you have a Quebec Diploma of Collegial Studies (D.E.C.) or an equivalent qualification, you are required to obtain a minimum of 90 credits. If you are studying full-time, you will normally take 30 credits a year. If you study part-time, you may take up to 18 credits in the Regular Session (September-April), spread equally over the two terms. It is also possible to take up to 12 credits in the Summer Session, although the range of course offerings tends to be limited. With a few exceptions, courses given over one term are worth three credits, while those given over two terms are worth six credits.

Within these 90 credits you must complete one of the following programmes of concentration:

**Honours**, which involves a minimum of 60 credits in a discipline (e.g. Political Science) or field (e.g. Urban Studies), and requires a high level of performance to enter and remain in the programme. You may list Honours on your application form, but you will not be officially accepted into the programme until the end of your first year. One of the primary purposes of Honours programmes is preparation for graduate studies. Joint Honours programmes may be arranged.

The **Specialization** also involves a minimum of 60 credits in a discipline or field. Content is generally similar to that of Honours programmes, but with rare exceptions in professionally-oriented programmes, there is no performance requirement. The Specialization provides study in depth, but still leaves a substantial number of credits to the individual's choice.

The **Major** has a lesser degree of concentration. It may require as few as 36 credits in a discipline or field, or, in rare cases, as many as 60, but the normal range is between 42 and 48. It is possible to take two majors within a single degree. More commonly a major is combined with a minor.

The **Minor** is a group of courses totalling between 24 and 30 credits and which provides a basic introduction to the methodology and key concepts of a discipline or field. Completion of one or more minors does not meet requirements for the degrees of B.A. or B.Sc., and a minor must be taken in combination with a Major, Specialization or Honours. There is however no requirement to take a Minor.

In some cases 30-credit **Certificates** are offered. These are independent programmes and are not part of degree programmes. If upon completion of a certificate you decide that you want to go on to take a degree, you can normally count the credits earned in the certificate towards the degree, where appropriate.

### Extended Credit Programme

If you are applying on the basis of studies done outside Quebec and which are not considered the equivalent of a Quebec Diploma of Collegial Studies (D.E.C.), you will normally, if accepted, be enrolled in the Extended Credit Programme which regularly requires a minimum of 30 additional credits to be taken before beginning the 90-credit bachelor's programme.

### Mature Entry

If you are over 21, even if you have not completed the normally-required previous

studies, you are eligible for entry as a mature student, in which case you must take at least 18 credits of additional work before beginning the 90 credit bachelor's programme.

### Requirements for the B.Ed. degree:

The Bachelor of Education degree is offered only in the Teaching of English as a Second Language. Programme requirements will be found in that section. The programme falls into the category of a Specialization, although it does not carry that title.

### Programme structure:

Degree programmes in the Faculty of Arts and Science are planned as a combination of specialization and general study. The Faculty is opposed to excessive specialization at the bachelor's level. That is why only a limited number of programmes of concentration (Honours, Specialization, etc.) require that more than 60 credits be taken in a single department. In keeping with this principle of a broadly-based education, you must, in order to graduate, have completed at least 24 credits outside the department in which your programme of concentration has been chosen. At the same time the Faculty believes that a minimum number of credits must be taken within the Faculty in order to earn one of its degrees. Consequently, not more than 36 credits out of the 90 may be taken outside the Faculty, and these should be spread evenly over your programme.

You should note that, in general, credits obtained in a given course may not be used to satisfy the requirements of more than one programme of concentration.

## Departments and Programmes:

Departments or other units are listed in alphabetical order. You will find a brief introductory statement, at the beginning of each section, with information on the field of study, career opportunities and the general characteristics of the offerings. With the exception of a few cases where programme structure is very fluid, the contents of each programme are given in terms of required courses and electives. Electives are of two kinds — those which must be taken within a department or field and "open" electives which may be taken in any department.

Please remember that this document has been prepared with the intention of making it easy for you to get a general idea of programme content and requirements. The "official" document is the undergraduate calendar, but the content of this document has been carefully checked to ensure that information contained in it is consistent with that appearing in the calendar.

The programmes offered by the Department of Applied Social Science are concerned with the role the social sciences play in the work of groups, organizations and agencies that serve people. Special attention is given to factors that increase the effectiveness of human relationships in one to one, small group, organizational and community settings.

The programmes, which focus on training the practitioner, contain foundation theory courses drawn from the social sciences combined with opportunities to learn through practical experience in the classroom as well as in organizations and agencies in Montreal.

The Department deals with the everyday realities of individuals, groups, organizations, institutions, and communities. There is a strong emphasis on dealing with change, and on learning to design and conduct activities that will help individuals, groups and organizations realize their potential. Special attention is given to self-awareness and to the creative and effective use of self in facilitating change.

## Programmes:

### Specialization in Applied Social Science:

This programme is designed for those planning on a graduate professional degree in such fields as social service, education, counselling, management, recreation, adult education or community development. Content is as follows:

- 15 required credits in Applied Social Science, including introductory material, interpersonal dynamics, group dynamics, and approaches to applied social research.
- 12 elective credits in Applied Social Science, from leadership and decision-making in community organizations, group development and supervision, community development, and principles and practices of counselling.
- 6 required credits in Psychology.
- 27 elective credits from groups composed of a wide range of courses in Applied Social Science, Psychology, Sociology and others.
- 30 elective credits in any department.

It should be noted that students who have not taken introductory courses in psychology and sociology must take these in addition to the above in their first year.

### Major in Applied Social Science:

- 12 required credits in Applied Social Science, including introductory material, interpersonal dynamics, group dynamics, and personal values and social problems.
- 6 elective credits in Applied Social Science, instead of the 12 listed in the Specialization.
- 24 elective credits from groups composed of a wide range of courses in Applied Social Science, Psychology, Sociology and others.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

### Major in Social Welfare:

- 6 required credits in social welfare services.
- 6 required credits in statistical methods in either Psychology or Sociology.
- 6 required credits in Political Science.
- 6 elective credits in Economics.
- 6 elective credits in Psychology.
- 18 elective credits in Sociology.
- 12 elective credits in Economics, Political Science or Psychology.
- 30 elective credits in any department.

**Certificate in Family Life Education:**

This 30-credit programme is designed for people who are actively involved in Family Life Education programmes in social agencies, local community service centres, education, churches, community programmes or who are interested in becoming more effective as Family Life Educators. It was developed in cooperation with the Association of Family Life Education of Quebec.

- 18 required credits in Applied Social Science, including understanding group behaviour, family communication, group development and supervision, sexuality and human relations, and an advanced integrative seminar.
- 12 elective credits from a range of courses in Education, Psychology or Sociology.

**Certificate in Community Service:**

This 30-credit programme is designed for people who are actively involved as staff volunteers, or board members on committees or councils of community organizations and agencies. Graduates of this programme work in a wide variety of community settings.

- 18 required credits in Applied Social Science, including understanding group behaviour, group development and supervision, community development and an advanced integrative seminar.
- 6 required credits in Sociology (community studies).
- 6 elective credits from a range of courses in Political Science or Sociology.

The Department offers a range of courses in Botany, Zoology, Ecology and Cell and Molecular Biology. Programmes are designed to provide a broad background in the biological sciences while allowing for specialization or diversification in line with individual interests. Given this flexibility, we recommend that you work out with one of the faculty advisers the programme that you will find most advantageous. The department offers honours, specialization, major and minor programmes.

Research interests of Faculty include Biotechnology, Genetic engineering, Ecotoxicology, Plant biochemistry, Ecology and Physiology and these are supported by substantial research grants from such organizations as the National Science and Engineering Research Council, and Quebec Ministry of Education.

An undergraduate degree in Biology can lead into various graduate programmes (M.Sc. Ph.D. in Biomedical Sciences, M.Ed., M. Library Science, M.B.A.) It can also serve as preparation for professional programmes in medicine, dentistry, veterinary medicine and law. Graduates at the B.Sc. level may seek employment as technicians and research assistants in government, hospital, industrial and university laboratories. Those wishing to pursue more advanced research or obtain management positions normally take graduate degrees.

A number of government agencies traditionally hire biology graduates. They include federal and provincial departments dealing with the environment, forestry, agriculture and fisheries, health and welfare. In the private sector, biology graduates are hired in the pharmaceutical industry, in scientific equipment sales and promotion, in quality control labs and in environmental consulting firms.

### Programmes:

#### Honours in Biology:

This programme is designed for outstanding students who wish to follow a rigorous sequence of courses in preparation for graduate work or professional training. A high level of performance is required to enter and remain in the programme.

Requirements are:

- 24 credits in Organic Chemistry, Biochemistry, Biostatistics and Genetics, together with six credits of independent study in a supervised research project.
- 6 credits in one of Animal, Plant or Cell Physiology.
- 36 credits selected from groups of courses in Zoology, Botany, Ecology or Cell and Molecular Biology (at least 3 credits in each group).
- 6 credits in specified Biology electives.
- 18 elective credits in any department, including Biological Science.

#### Specialization in Biology:

The Specialization is generally similar to Honours, but no special performance level is required. Fifty-four credits of required and elective courses must be taken in Biology and six in Organic Chemistry. The remaining 30 credits may be taken in any department.

#### Major in Biology:

The Major requires 36 credits in Biology and is designed for those not wishing a heavy specialization in the subject. The Major is often taken together with a Major in another department, or it may be taken with a Minor. Requirements are:

- 9 credits in Organic Chemistry and Genetics.
- 6 credits in Biochemistry, Cell Metabolism, or Cell or Plant Physiology.
- 15 credits selected from groups of courses in Botany, Cell and Molecular Biology, Ecology and Zoology (3 credits in each group)
- 54 elective credits in any department which may include a second major or a minor in another department.

#### Minor in Biology:

The minor requires 24 credits. It is designed for students whose main interest is in another department, and is highly flexible. Non-science students should have taken CEGEP Biology 301 or the equivalent.

### Graduate Programmes:

The Department offers a programme leading to the degree of Master of Science in Biology. Research areas include animal physiology, aquatic toxicology, cell biology, ecology, microbiology, and plant physiology and biochemistry.

Canadian Studies, a field in which this University was a pioneer is growing rapidly throughout North America and overseas. There are two reasons for this. One, obviously, is the growth of interest in Canada, not only within Canada but in countries as diverse as the United States, Japan, India, and Italy where scholars have formed Canadian Studies associations. The other reason is the opportunity the programme offers to gain breadth through the study of a variety of disciplines, to compare their methods, and to bring them together on a single problem. With so many employers now demanding versatility, this breadth is a valuable asset.

Whether taken by itself or in conjunction with another concentration, Canadian Studies offers the student flexibility and a broad understanding of academic disciplines — all based on a solid grasp of the Canadian environment.

### Programmes:

#### Specialization in Canadian Studies:

- 12 required credits in Canadian Studies, an introductory course and an advanced seminar.
- 6 required credits in Canadian literature.
- 6 required credits in French language.
- 6 required credits in Canadian history.
- 30 elective credits chosen in consultation with the Coordinator from courses with Canadian content in Anthropology, Art History, Communications, Economics, Education, English, French, Geography, History, Interdisciplinary Studies, Journalism, Political Science, Religion, Sociology and World Music.
- 30 elective credits in any department.

#### Major in Canadian Studies:

The content is similar to that of the Specialization, but with 12 elective credits rather than 30 in Canadian-content courses, for a total of 42, leaving 48 elective credits in any department, some of which may take the form of a major or minor in another department.

#### Minor in Canadian Studies:

As for the Major, but without the electives, for a total of 30 credits.

## Chemistry

At a time when there is a tendency to believe that "science" can ultimately answer all our questions and satisfy all our material needs, it is important to ensure that scientific knowledge is carefully used. Chemists, like others in rapidly expanding disciplines, have been forced to specialize in the different areas covered by the general term "chemistry" — physical, organic, analytical, and inorganic, as well as biochemistry. The interdependence of the various branches of chemistry is, however, fully recognized by all chemists and most discoveries and inventions have come about through cooperative effort.

At the undergraduate level, the Department offers instruction in three closely related areas:—

i) **Chemistry** — the science that deals in general with the molecular properties of matter, how the physical and chemical properties of matter interact with each other, and how we can use these interactions in the world in which we live.

ii) **Biochemistry** — the science that studies the structure and dynamics of living matter on the molecular level, by using biology, chemistry, physics, and mathematics to explain the chemical basis of life, and the ways by which it can be regulated and modified.

iii) **Analytical Chemistry** — that branch of chemistry used in the separation and analysis of both organic and inorganic materials. The techniques involved range from the very simple to the highly complex, and nowadays the analytical chemist must be trained in the techniques of interfacing laboratory equipment and microprocessors.

The main aims of the undergraduate teaching programme are: (a) to provide the theory and practice of Chemistry, Biochemistry and Analytical Chemistry for those students planning a career in one of these areas; (b) to provide a suitable background for those who intend to enter graduate school; and (c) to provide a suitable knowledge of the subject for those who will complete their studies in other areas.

### Programmes:

To satisfy all these diverse needs, the Department offers the following range of programmes:

#### Chemistry:

##### Honours in Chemistry:

- 69 credits in Chemistry
- 3 credits in Mathematics
- 18 elective credits in any department, chosen in consultation with the undergraduate adviser.

A high level of performance is required to enter and remain in the Honours programme. This programme has been accepted by the Order of Chemists of Quebec as providing sufficient training for membership in the Order.\*

##### Specialization in Chemistry:

- 57 credits in Chemistry.
- 3 credits in Mathematics.
- 30 elective credits in any department, chosen in consultation with the undergraduate adviser.

This programme has been accepted by the Order of Chemists of Quebec, as providing sufficient training for membership in the Order\*.

##### Major in Chemistry:

- 22 required credits in Chemistry.
- 20 elective credits in Chemistry, chosen from a wide range of courses.
- 48 elective credits in any department, some of which may take the form of a major or a minor in another department.

##### Minor in Chemistry:

The minor is a group of 24 specified courses in chemistry, normally used to complement an Honours, Specialization, or Major programme in another area of concentration (e.g. Honours in Biology, Minor in Chemistry, etc.).

## Biochemistry:

### Specialization in Biochemistry:

- 51 credits in Chemistry and Biochemistry.
- 12 credits in Biology.
  - 9 credits in advanced Biochemistry and Biology, or in Medicinal Chemistry.
- 18 elective credits in any department, chosen in consultation with the undergraduate adviser.

This programme has been accepted by the Order of Chemists of Quebec as providing sufficient training for membership in the Order\*.

### Major in Biochemistry:

- 39 credits in Chemistry and Biochemistry.
- 3 credits in Biology.
- 48 elective credits in any department, some of which could take the form of a major or a minor in another department.

## Analytical Chemistry:

### Specialization in Analytical Chemistry:

- 64 credits in Chemistry.
- 6 credits in Computer Science.
- 20 elective credits in any department, chosen in consultation with the undergraduate adviser.

This programme has been accepted by the Order of Chemists of Quebec as providing sufficient training for membership in the Order\*.

### Co-Operative Studies in Chemistry:

Students in any of the Honours or Specialization programmes listed above may apply to do their studies within the Co-op format, which alternates off-campus work terms and on-campus study terms. Further details will be found in the section on the Institute for Co-operative Education (page 43).

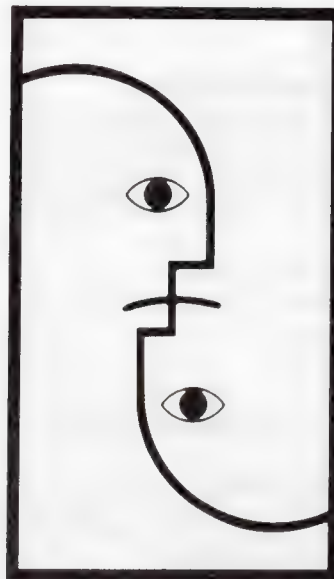
### Graduate Programmes:

M.Sc. and Ph.D. programmes are offered to suitably qualified students in the following areas:-

- Physical Organic Chemistry
- Analytical Chemistry
- Photochemistry and Laser Spectroscopy
- Biochemistry
- Instrumentation
- Inorganic Chemistry

(The Canadian Picosecond Laser Flash Photolysis Centre is located within the Department, in the Hall Building of the SGW Campus.)

\*Students should be aware of the fact that, under the requirements of Bill 101, a working knowledge of French is also required for membership in the Order of Quebec.



In the civilizations of Greece and Rome — their thought, their art, their language and literature — lie the roots of modern Western civilization. Study of these civilizations is one of the foundations of a liberal arts education. In the writings of what appear to us as remote ages we find psychological, sociological and political concerns which are as valid today as they were then. Classical perceptions of architecture and sculpture remain basic to modern concepts. The Department of Classics at Concordia stresses this relationship in the wide range of courses which it offers, including the influences of other cultures and civilizations of the ancient Near East.

Classical Studies include courses in Greek and Latin literature, in translation, in the various historical eras from the Minoan to the Byzantine, in mythology, in social and racial relations and religious beliefs, and in classical archaeology. Classical Philology offers a sequence of language courses starting at the elementary level and leading to the reading of works by major writers in the original.

Classics graduates, if fewer in number than they were a generation ago, may be found in a wide range of positions where a liberal arts education is recognized as having a particular value.

**Programmes:**

**Classical Studies:**

**Honours and Specialization in Classical Studies:**

The main difference between these two programmes is that a high level of performance is required to get into, and remain in, the Honours programme. Programme content is as follows:

- 24 required credits in classical history, civilization, mythology, art and archaeology
- 18 required credits in literature.(Greek & Latin)
- 18 elective credits from a wide range of Classics courses.
- 30 elective credits in any department.

**Major in Classical Studies:**

- 30 required credits in classical history, literature, mythology, art and archaeology.
- 12 elective credits from a wide range of Classics courses.
- 48 elective credits in any department, which may take the form of a major or a minor in another department.

**Minor in Classical Studies:**

The minor consists of 24 credits, half of which are required, the balance being electives. This minor could be a very useful complement to a major in another department — for example, History, Philosophy, Religion.

**Classical Philology:**

**Honours in Classical Philology:**

This programme constitutes a rigorous and wide-ranging study which proceeds generally from courses in Latin and Greek at an elementary level to the reading of works by leading classical authors. Arrangements are made to accommodate students entering with previous knowledge of one or both languages. This programme is the normal preparation for studies at the master's and doctoral levels. Programme content is as follows:

- 24 required credits in Latin and Greek languages.
- 6 required credits in Greek and Roman history.
- 6 required credits in literature.
- 18 credits in Greek authors.
- 18 credits in Latin authors.
- 18 elective credits in any department.

**Major in Classical Philology:**

- 6 credits in Greek and Roman history.
- 6 credits in literature.
- 24 credits in Latin and Greek languages.
- 6 credits in advanced Latin or Greek.
- 48 elective credits in any department, which may take the form of a major or a minor in another department.

**Minor in Classical Philology:**

24 credits in Greek and/or Latin.

**Minor in Classical Archaeology:**

- 15 required credits in Classical Art and Archaeology.
- 9 credits in Classics, Art History or field work.

The first department of its kind in a Canadian university, Communication Studies has been in existence for nearly twenty years. Its programmes include study of the major media, seeking to develop a high level of media literacy, and also investigation of the social and historical, scientific and technological contents of modern communication. Multi-disciplinary, they combine the department's own courses with recommended electives in the Humanities, Social Sciences and Natural Sciences.

Lectures, seminars and laboratories investigate, intellectually and critically, the interaction of people and media. Focussing on the role of the media in society, they examine the goals of society as projected by the media and also the responsibility of the media to society.

Students acquire skill in basic media technology through hands-on work as well as an understanding of the many means of communication. Next comes concentration on the rhetorical and artistic dynamics of the media, including film, television, radio-sound, and photography, and creation of a work in a chosen medium.

The Communication Studies programme has been designed for students:

- planning to work in media, whether as writers, critics, directors or performers;
- interested in careers in advertising and public relations, publicity work, communications consulting or media research;
- intending to pursue graduate studies in communication or to become teachers in this field.

### Programmes:

#### Specialization in Communication Studies:

- 18 required credits in Communication Studies including basic writing for the media, communication theory and analysis, visual dynamics, seminar and practicum in sound, and in film and video.
- 42 elective credits in Communication Studies, which may be chosen to allow either wide-ranging study or some "streaming" in an area of personal interest. A minimum number of credits must however be taken in each of: Group A — liberal arts, critical and philosophical study of media and communication; Group B — a more research-oriented or social science-based approach; Group C — study of and practice in creative media production.
- 30 elective credits in any field except Communication Studies, Journalism or Cinema (Fine Arts). Given the concentrated nature of the programme, students are advised to choose these electives from courses that are not directly related to communication studies.

#### Major in Communication Studies:

This programme is designed for those who want to combine Communication Studies with a major or minor in another area, such as English, History, Philosophy, Political Science, Psychology or one of the Natural Sciences. It contains the same 18 required credits as the Specialization, but the number of elective credits in Communication Studies is reduced to 24, for a total of 42 credits, leaving 48 open elective credits to be chosen in any field except Communication Studies, Journalism or Cinema (Fine Arts). Some of these credits may take the form of a major or minor in another department.

#### Specialization in Communication and Journalism:

This is a joint programme which meets a variety of needs. It places a strong core of Journalism courses (especially writing and reporting) within the broader framework of Communication Studies, and so provides a good foundation for work in the media and in such fields as promotion, public relations, and business communication. Content is as follows:

- 21 required credits in Journalism, including writing and reporting, history of journalism, and specialist reporting or Quebec affairs.
- 3 required credits in communication theory.
- 6 elective credits in Communication Study, from visual dynamics, seminar and practicum in sound, or in film and video.
- 12 elective credits from a wide range of courses in Communication Studies.
- 18 elective credits in Communication Studies or Journalism, 6 of which may be from a related field.
- 30 elective credits from outside Communication Studies and Journalism.

#### Specialization in Broadcast Journalism:

Details of this joint programme will be found in the Journalism section (p. 25).

#### Graduate Programmes:

- M.A. in Media Studies (45 credits).
- Diploma in Communication Studies (33 credits).

Economics deals with a fundamental problem facing people throughout the world — that of unlimited wants confronting limited resources. It is a problem which calls for 'economizing' or the efficient allocations of those resources. Our papers are full of stories about inflation, unemployment, poverty, discrimination, management-labour conflict, the ownership of industry and resources, and pollution. The study of economics can lead to a better understanding of these situations, and suggest practical ways of dealing with them. The Concordia Department of Economics specializes in applied economics.

Government departments in Ottawa and Quebec employ economists to compile and study data on prices, employment and unemployment, national income, foreign investment and many other subjects. Most corporations have departments of economic research. There is also a demand for economists to teach in universities or colleges.

Graduate work is normally required for senior research posts in government and, increasingly, in industry as it is for college-level teaching, and a Ph.D. is required for university appointments.

The Department operates a Co-op programme in association with the Institute for Co-operative Education. Students are thereby trained in both theory and practice. The work terms give them direct experience of professional employment and, combined with a solid academic education, greatly add to their chances of finding a good job after graduation.

### Programmes:

#### Honours and Specialization in Economics:

Both programmes have the following content:

- 24 required credits in Economics, including introductory and intermediate microeconomic and macroeconomic theory, and mathematics for economists. Where the content of the introductory courses has already been covered in previous studies, they will be replaced with economics electives.
- 6 credits in Statistical Methods, not necessarily from economics courses (e.g. Quantitative Methods).
- 18 elective credits in Economics. In the case of Honours these take the form of an "advanced core" of courses in advanced theory, history of economic thought, econometrics, mathematical economics, advanced monetary theory, advanced public finance, or international economics. A high level of performance is also required to enter and remain in the Honours programme. In the case of the Specialization 18 unspecified economics credits are to be selected at the advanced level.
- 12 elective credits in Economics.
- 30 elective credits in any department.

#### Major in Economics:

Content is the same as for the Specialization, but without the required courses in mathematics, and with only 6 advanced-level Economics electives instead of 18. The number of elective credits in any department thus becomes 48, some of which may take the form of a major or minor in another department.

#### Minor in Economics:

- 18 required credits in microeconomic and macroeconomic theory.
- 12 elective credits in Economics.

The Honours and Major programmes may also be taken within the Bachelor of Commerce degree.

#### Economics Co-operative programmes:

Students enrolled in the Honours or Specialization programmes may take them in the cooperative format. Details will be found in the section devoted to the Institute for Co-operative Education (p. 43).

#### Graduate Programmes:

- M.A. in Economics (45 credits).
- Ph.D. in Economics (90 credits).

The Education Department at Concordia has chosen to specialize in certain distinct areas — notably pre-school and the early years of elementary school, and, at the graduate level, educational technology, which involves, amongst other things, distance learning and computer-assisted instruction. The Early Childhood programmes offer a variety of courses in child development, the use and effects of media, family dynamics, and the particular problems of the gifted as well as of children with behavioural or learning disabilities. The programme is unusual because of the emphasis placed on the pre-school child, on those early years that determine to a great extent how well a child will do academically.

Faculty associated with undergraduate programmes conduct research in a number of related areas, including media literacy for children, micro-teaching techniques, cognitive aspects of second-language learning, factors influencing achievement in inner-city schools, educational environment and the need for privacy.

### Programmes:

#### Specialization in Early Childhood Education:

This programme has been specifically designed to prepare teachers for pre-school and grades I to III of the elementary school. Comprehensive internships are required at the pre-school, kindergarten and primary grade levels. Successful completion of the programme leads to certification by the Quebec Ministry of Education. Programme content is as follows:

- 12 required credits in psychological and sociological aspects.
- 9 required credits on historical and current issues.

- 15 required credits in the teaching of reading, language arts, science concepts and mathematics.
- 3 required credits on education in Quebec.
- 18 required credits in practice teaching and internship in schools.
- 6 elective credits in the teaching of arts, drama, music or exercise science.
- 6 elective credits in educational theory.
- 3 elective credits in the teaching of values, human sciences or a second language.
- 6 credits in dealing with learning or behavioural problems.
- 12 elective credits in any department.

### Major in Child Studies:

This programme is designed for those seeking a sound academic background for work with small children but not necessarily a professional qualification. It has a large elective component, so that students have an opportunity to broaden their studies in other areas — for example, art, music, drama, exercise science, family life, second languages, or communications. Programme content is as follows:

- 18 required credits in sociological aspects, educational relationships and class-room dynamics.
- 9 elective credits in courses on children with particular backgrounds or problems.
- 9 elective credits in educational theory or the teaching of particular subjects.
- 3 elective credits in psychology.
- 6 elective credits in at least two of a wide range of disciplines from art to sociology.
- 45 elective credits in any department, some of which may take the form of a major or minor in another department.

### Certificate in Adult Education:

This 30-credit programme is designed for people who are actively involved in some area of adult education, or who have the equivalent of one year's experience in the field, either as leaders, trainers, teachers, volunteer workers or administrators in educational institutions, business, industry, government or community organizations. Content is as follows:

- 12 required credits in Adult Education, six of them being an introduction to the field, the other six being an integrative seminar held at the end of the programme.
- 15 elective credits in Adult Education or Psychology.
- 3 credits in a related field.

### Graduate Programmes:

- Ph. D. in Educational Technology (90 credits).
- M.A. in Educational Technology (90 credits).
- Diploma in Instructional Technology (30 credits).
- M.A. in Educational Studies (45 credits).
- Diploma in Early Childhood Education (33 credits).
- Diploma in Computer Assisted Learning (30 credits).

Many of the professors in the Department of English are published authors — known for their poetry, drama and fiction as well as criticism and works of scholarship. But their primary commitment is to teaching. Classes are small with an average enrolment of about 30. In the seminar courses for advanced students and creative writing workshops enrolment is limited to about 20. Discussion is an important element in virtually every course.

At the core of the curriculum — particularly for students taking Honours — are courses in the major authors (Chaucer, Shakespeare and Milton) and historical periods of English Literature from the fourteenth to the twentieth century. In addition there is a great variety of courses in subjects as diverse as Children's Literature, Women's Literature, Science Fiction, and the Psychological Novel, as well as in American, Canadian and European literature. Modern literature is a special strength of the department.

The Department has long offered an M.A. in Creative Writing. We have recently added a B.A. Major in Creative Writing, also taught by published authors.

The English Department at Concordia approaches literature from many points of view — formal, psychological, sociological, structural, historical, and creative. We like to think that this diversity offers the student a rich and varied experience that will remain of interest and use well beyond graduation.

## English (cont'd)

### Programmes:

#### Honours and Specialization in English:

The Honours programme is designed mainly for those planning to go on to graduate studies. A high level of performance is required to enter and remain in the programme. The Specialization has no particular performance requirement. Content is as follows:

- 60 elective credits from various groups of courses in English.
- 30 elective credits in any department.

#### Major in English:

- 30 elective credits from various groups of courses in English.
- 12 open elective credits in English, 6 of which may be taken in approved cognate courses.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

#### Major in Creative Writing:

- 12 required credits in two of three basic areas: drama, poetry, prose.
- 6 credits in a continuation in one of these areas.
- 12 elective credits from two sets of courses.
- 12 open elective credits in English literature.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

#### Minor in English Language:

- 24 elective credits selected from a list of specified courses.

#### Minor in English Literature:

- 24 elective credits in English literature.

#### Minor in English Dramatic Literature:

- 6 required credits in Shakespeare.
- 18 elective credits selected from designated courses.

#### Minor in Creative Writing:

- 12 required credits in two of three basic areas: drama, poetry, prose.
- 12 elective credits selected from a list of English courses.
- 6 elective credits in English.

#### Joint Honours in English and Études françaises:

- 6 required credits of advanced independent study in either English or Études françaises.
- 30 elective credits from various groups of courses in English.
- 30 elective credits from various groups of courses in Études françaises.
- 6 elective credits from either.
- 18 elective credits in any department.

#### Joint Specialization in English and History:

- 12 elective credits from two groups of courses in English.
- 12 elective credits in English from two different periods.
- 12 elective credits from corresponding periods in History.
- 6 open elective credits in English.
- 18 elective credits in History.
- 30 elective credits in any department.
- Other joint programmes may be arranged in certain cases.

### Graduate programmes:

#### M.A. in English:

- Option I — with courses only.
- Option II — with three departmental papers.
- Option III — with thesis.
- Option IV — creative writing.

**Diploma in English** — designed specifically for high-school teachers (32 credits).

## Études françaises:

A department of French in an English-language university in a predominantly French-language milieu is in a unique position to satisfy the needs of a wide range of clientele. The Département d'études françaises offers courses and programmes in French language, French and Quebec literature, Linguistics and Translation. A variety of language courses, designed to accommodate people with all levels of existing proficiency from beginners to the very advanced, is supplemented by a range of courses in French for special purposes. These permit students to follow their language study in an area related to their intended career — economics, finance and management, recreology, law or library studies, to name only a few. Courses in French linguistics make it possible to explore the theoretical foundations of language, as well as studying such practical topics as pronunciation and the characteristics of Quebec French.

The Department has in recent years been developing very successful programmes in French/English translation, providing the practical and theoretical training needed to specialize in the field. Courses in comparative stylistics, in the adaptation of advertising copy, in the translation of technical, commercial and literary texts, in terminology, in revision and correction, are accompanied by on-the-job training through a supervised internship. The programme is recognized by the Canadian Association of Schools of Translation.

Courses in French and Québec literature provide both broad surveys and the possibility of in-depth study of a period, a literary genre, a theme or comparative studies. A wide range of courses is devoted to the many aspects of contemporary Quebec literature and culture.

### Programmes:

#### 1. French Language:

##### Major in French Language:

- 30 credits in language, arranged according to the existing proficiency and interests of the student.
- 6 credits in French literature.
- 6 credits in Linguistics or Translation given by the Department.
- 48 elective credits in any department, which may take the form of a major or minor in another department.

##### Minor in French Language:

- 24 credits in language, arranged according to the existing proficiency and interest of the student.

##### Certificate in French Language:

- 30 credits in language, arranged according to the existing proficiency and interests of the student. Credits used to obtain the Certificate can normally be counted, where appropriate, towards a subsequent degree programme.

#### 2. French Literature:

##### Honours and Specialization in French Literature:

The main difference between these two programmes is that a high level of performance is required to get into, and remain in, the Honours programme.

- 48 credits in literature, including 9 in Quebec literature.
- 9 credits in French linguistics.
- 6 credits in research methodology.
- 27 elective credits in any department.

##### Major in French Literature:

- 6 credits in Quebec culture and civilization.
- 30 selected credits in French literature.
- 6 credits in advanced composition.
- 48 elective credits in any department, which may take the form of a major or a minor in another department.

#### 3. Quebec Literature:

##### Honours and Specialization in Quebec Literature:

The main difference between these two programmes is that a high level of performance is required to get into, and remain in, the Honours programme.

- 45 credits in Quebec literature and civilization.
- 9 elective credits in literature (not necessarily French or Quebec).
- 6 credits in research methodology.
- 30 elective credits in any department.

Joint Honours programmes with other departments can be arranged.

### Major in Quebec Literature:

- 30 credits in Quebec literature, civilization and culture.
- 6 credits in French literature or civilization.
- 6 credits in advanced composition.
- 48 elective credits in any department.

### Minor in Literature:

- 24 elective credits in French or Quebec literature, chosen in consultation with the Department.

## 4. Translation:

### Specialization in French/English Translation:

- 6 credits in French composition
- 6 credits in English composition
- 36 credits in Translation — theory, practice (technical and literary), terminology, revision.
- 6 credits in Quebec literature and civilization.
- 6 credits in Linguistics.
- 12 elective credits chosen in consultation with the Department.
- 18 elective credits in any department.

As has been noted above, this programme has been given official recognition by the Canadian Association of Schools of Translation.

### Major in Language and Translation:

- 12 credits in French language.
- 6 credits in English composition.
- 6 credits in culture or literature of the French-speaking world.
- 6 credits in literature of the English-speaking world.
- 18 credits in Translation
- 42 elective credits in any department, which may take the form of a major or a minor in another department.

The Major in Language and Translation is not designed for those who intend to pursue a professional career in translation; but it will be of interest to those whose work or career prospects require proficiency in writing in both English and French.

## French Summer School:

The French Summer School (July to mid-August) is an integral part of the offerings of the Department. Intensive courses are given in language and civilization, coupled with learning activities outside the classroom.

## Graduate programme:

The Department offers a 30-credit Diploma in Writing/Translation.

Exercise Science provides a variety of programme options which prepare students to pursue careers in allied health professions where knowledge of the scientific principles of exercise is employed to promote physical well-being.

## Programmes:

### Specialization in Exercise Science:

The Specialization is made up of a common core of courses and a choice of options. The general structure is as follows:

- 6 required credits in organic chemistry
- 3 required credits in principles of physical conditioning
- 30 required credits in exercise science, including introductory material, human anatomy, psychomotor learning, cardiovascular and respiratory physiology, kinesiology, and the physiology of exercise.
- 21-27 credits required for the option (see details below).
- 23-30 credits in any department.

### Option A (Sports Science):

This option is designed for students interested in working in the area of athletic performance. Special emphasis is placed on the theoretical and practical aspects of evaluating athletic performance, developing programmes of intervention to improve performance and in the prevention, care and rehabilitation of sport-related injuries. Students are prepared to seek employment with sport organizations, clinics, hospitals, and special schools where the goal is to improve athletic performance. Students pursuing this option receive the appropriate preparation to take the Canadian Athletic Therapists Certification Examination.

- 3 required credits in neurology
- 3 required credits in statistics
- 3 required credits in biomechanics of human motion
- 15 required credits in exercise science, including prevention and care of athletic injuries, sports medicine, rehabilitation and treatment of athletic injuries and a fitness and science internship.

### Option B (Therapeutic Activity):

This option is for students interested in working with "subnormal" segments of the population. It focuses on the special exercise requirements that pertain to neuromuscular, skeletal, metabolic, cardiovascular, and respiratory disorders. Students are prepared for employment in clinics, hospitals and special schools where there is a need for gross physical motor activities to benefit those individuals in need of a cardiac rehabilitation programme or a programme to improve pulmonary function, control obesity, high blood pressure or diabetes. Others may seek to work with children with impaired motor development while still others may choose to engage in exercise programming for senior citizens.

- 3 required credits in statistics
- 21 required credits in exercise science, including sport and recreation skills for children, psychomotor learning and eurhythmics in early childhood curriculum, therapeutic exercise physiology, therapeutic role of movement, emergency care of athletic injuries, and a therapeutic activity internship.

#### **Option C (Pre-research) :**

This option provides the opportunity to pursue a course of study at the frontier of the health professions. Students can become involved in research efforts focusing on as yet unknown physiological mechanisms governing physical performance. The results of such effort can be used to validate exercise as a means of intervention that may maintain as well as enhance recovery from degenerative conditions resulting in disability. Graduates of this option are prepared to undertake advanced study at the graduate level in a medically-oriented programme.

- 6 required credits in biostatistics
- 3 required credits in computer science
- 3 required credits in biochemistry
- 2 required credits in experimental electronics
- 12 required credits in exercise science, including kinesiology, research, design and a research internship.

#### **Option D (Community Fitness Science):**

This option prepares students with the knowledge and leadership ability required to function as an exercise leader. Students enrolled in this option focus on evaluating the many components of fitness, interpreting the findings, and individuals. Employment opportunities for exercise leaders can be found in employee and executive fitness programmes offered in business and industry, exercise programmes offered by private or commercial health clubs or service agencies such as the Y.M.C.A., as well as in programmes sponsored by the local, provincial and federal governments.

- 3 required credits in statistics
- 18 required credits in Exercise Science, including psychomotor learning and eurhythmics, play, sport and recreation for children, emergency care of athletic injuries, preventative medicine and geriatrics and community fitness science internship.

#### **Major in Exercise Science:**

This programme is designed for those seeking core courses in the field while taking elective courses to meet specific goals and interests. For example, students might take a strong psychology or sociology concentration which could strengthen their background for working with mentally retarded or emotionally disturbed individuals in an exercise setting.

Content of the Major is the 39-credit core of the Specialization, with the addition of 3 credits in statistics for a total of 42, the remaining 48 credits being electives which may be taken in any department, some of them possibly taking the form of a major or minor in other department.

#### **Certificate in Outdoor Education :**

Admission to the programme normally requires possession of a bachelor's degree or completion of the three-year Recreation programme in the Quebec CEGEP system.

- 18 required credits in exercise science, including outdoor recreation and leadership, scientific principles of outdoor education, and administration and implementation.
- 12 elective credits in consultation with a departmental adviser.

#### **Graduate Programme:**

The Department offers, in cooperation with the Faculty of Commerce and Administration, a 33-credit Diploma in Sports Administration.

# Geography

Geography is a broad discipline and this is one of its assets. Spanning the Natural and Social Sciences, it seeks to develop graduates who will understand and can use the 'languages' of several disciplines. Geographers are trained to integrate with their own spatial perspectives, with other specialists such as economists and engineers. Also, the main interests of geographers — environmental analysis, man-environment relations, and geographical or demographic distributions — are fundamental concerns in many sectors of employment.

Geography is an ancient discipline with modern dimensions. It studies the earth's ecosystems from a spatial point of view. Some geographers study the natural environments, while others examine how man has interacted with nature in a variety of ways in different parts of the world. The geographer must develop expertise in such matters as climate, landforms, soils, resources, transportation, and urbanization. Since in-depth knowledge of so many subject areas is impossible, the student normally specializes in some specific area such as the physical environment, economic development, or cultural distributions. This may lead to further specialization as, for example, a hydrologist or transportation analyst.

Here is a list of the positions held by recent graduates in Geography from Concordia:

**Private Sector:** Marketing manager for a shipping company; store location analyst; transportation planner; cartographer; researcher for an engineering consulting firm; urban planner; forest manager.

**Public Sector:** Meteorologist; city planner; national parks planner; teacher at school, college or university; cartographer; environmental analyst; regional planner.

## Programmes:

The Department offers programmes leading to both the B.A. and the B.Sc. degrees. As a relatively small department, specializing in undergraduate education and occupying its own premises, it has created a distinctly collegial environment. Faculty members have a wide range of research interests with a particular focus on Canadian matters. Topics range from the patterns of tropical rainfall to the international functions of cities and demographic aspects of Newfoundland outports.

Three traditional areas are offered: physical, cultural (including historical), and economic (including urban). Since field work is an important aspect of Geography, students will be expected to spend some time in the field during their second and third years.

### 1. Bachelor of Arts:

Common core of 30 credits for Honours, Specialization and Major in Geography (B.A.):

18 required credits in Geography, including Human Geography, Cartography and the Natural Environment.

12 required credits in Geography including Regional Geography research methodology and statistics.

### Honours in Geography (B.A.):

A high level of performance is required to enter and remain in the programme.

30 credits in Geography (common core).

30 credits in Geography:

Pattern A (Physical):

12 required credits in field studies, History of Geographical Thought and Honours Essay.

12 required credits in two of Biogeography, Analysis of Environment and Climatology.

6 elective credits in special topics or Hydrology.

Pattern B (Human):

24 required credits in either Cultural Historical or Economic-Urban Geography.

30 elective credits in any department.

### Specialization in Geography (B.A.):

As for the Honours, but a) there is no particular performance requirement, and b) the six-credit Honours Essay is replaced by six elective credits in Geography at the intermediate or advanced level.

### Major in Geography (B.A.):

30 credits in Geography (common core).

12 elective credits in Geography at the intermediate or advanced level.

48 elective credits in any department, some of which may take the form of a major or minor in another department.

### Major in Man-Environment Relationships (B.A.):

This programme focusses on the theme of man-environment relationships, and is structured around required tutorial courses in the second and third years of study. It is a highly individualized programme requiring frequent consultation between students and faculty members.

- 24 required credits in Geography, including Human Geography, Maps and Statistical Data, Climate, Landforms, and Biogeography.
- 12 required Geography credits of tutorials.
- 6 required Geography credits in Recreation and Tourism or Resource Utilization and Conservation.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

### Minor in Geography (B.A.):

- 18 required credits in Geography including Human Geography, Cartography and Natural Environment.
- 12 elective credits in Geography at the intermediate or advanced level.

## 2. Bachelor of Science:

### Specialization in Geography (B.Sc.):

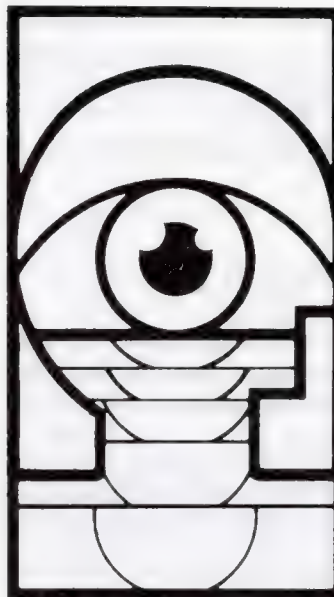
- 18 required credits in Geography, including Human Geography, Cartography and the Natural Environment.
- 12 required credits in Geography, from a group including Biogeography, Environmental Analysis, Cartography and Hydrology.
- 36 elective credits from one of three groups of courses in Geography and other science disciplines: Environmental Geography, Hydrology or Geoscience.
- 24 elective credits in any department.

### Major in Geography (B.Sc.):

- 42 credits in Geography, as for the Specialization (B.Sc.) but without Human Geography and with 18 elective credits from one of the three groups.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

### Minor in Geography (B.Sc.):

As for the Major (B.Sc.), but with only 6 credits from one to the three groups, for a total of 30 credits.



Study and prediction of natural phenomena, as well as the constant search for and conservation of metals, fuel and water resources, and the study of the effect of human activity on the Earth's environment — all these are part of geology. The end of the era of abundant and cheap energy from fossil fuels and the widespread realization that human meddling with nature is beginning to produce long-term and perhaps irreversible deterioration of the environment have made us realize the importance of knowing how the Earth works.

The principal employers of geology graduates are governments at the federal and provincial level, companies engaged in oil and mineral and water-resource exploration and engineering, the United Nations and its agencies, as well as educational institutions.

As geology increasingly becomes a largely quantitative, experimental and predictive science, a strong background in the basic sciences and in mathematics is increasingly important. The Department has implemented new programmes of specialization involving chemistry, physics and environmental science. Since there are limits to what can be done in the laboratory, we conduct numerous field trips as part of the courses. Field schools are organized by the staff in the two weeks following the close of the winter term. In addition to courses designed for those planning to specialize in geology, the Department also offers a number of general-interest non-laboratory courses for students in other departments or Faculties.

## Geology (cont'd)

### Programmes:

In all programmes there is a common core of 30 credits, including Physical, Historical and Structural Geology, Mineralogy, Paleontology, Petrology and Tectonics.  
(Except the Major in Geology (Ecology Option) and the Minor.)

### Honours in Geology:

- 30 credits of common core Geology courses.
- 3 credits of Computer Science.
- 3 credits in Statistics.
- 33 required credits in Geology, including 3 credits of field work and 6 credits devoted to a research project.
- 21 elective credits in any department.

A high level of performance is required to get into, and remain in, the Honours programme. It is designed mainly for those planning to go on to graduate work.

### Specialization in Geology:

The content of this programme is generally similar to that of the Honours programme, except that there is no performance requirement, nor is there a research project.

#### Specialization in Geology — Chemistry:

- 30 credits of common core Geology courses.
- 12 elective credits in Geology.
- 3 credits of Computer Science.
- 29 required credits in Chemistry.
- 12 elective credits in any department.

#### Specialization in Geology — Physics:

- 30 credits of common core Geology courses.
- 3 further required credits in Geology.
- 9 elective credits in Geology.
- 22 required credits in Physics.
- 10 elective credits in Physics.
- 6 required credits in Mathematics.
- 12 elective credits in any department.

#### Specialization in Resource Analysis and Land Use:

- 30 credits of common core geology courses.
- 12 elective credits in Geology.
- 27 required credits in Geography.
- 6 selected credits in Political Science or Economics.
- 15 credits in any department.

### Major in Geology:

The Major in Geology is made up of the 30 credits of common core, plus 6 elective credits in Geology and 54 credits in any department. This programme is not designed to provide any particular degree of specialization in Geology. It may be combined with a major or a minor in another department.

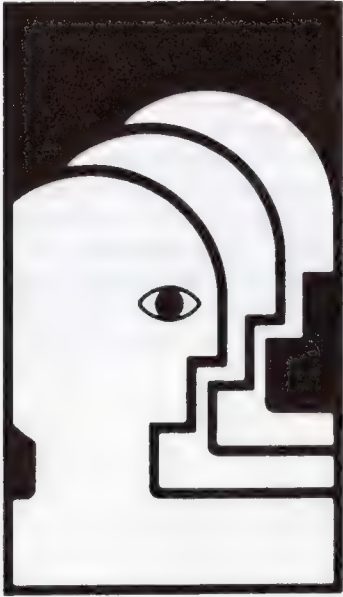
### Major in Geology (Ecology Option):

This programme contains a good part of the common core together with a number of required and elective credits in geology. It is designed to appeal to those interested in the ecological aspects of geology. It has 9 required credits in Biology, and 3 elective credits in Ecology. 46 elective credits may be taken in any department, and may take the form of a major or minor in another department.

### Minor in Geology:

Made up of 12 basic credits in Geology and 12 elective geology credits, this programme is designed to complement programmes of specialization in other areas.

## History:



The Department of History offers its students a wide choice of options. Areas of faculty specialization include Canada, Europe, Latin America, the United States, Asia and Africa, and range from political and diplomatic to social and quantitative approaches to the discipline. Offerings on both the Sir George Williams and the Loyola campuses have been designed to meet the requirements and interests of both full-time and part-time students. Students who wish to obtain a general background in History have as great a choice of courses as do those who plan to specialize.

History is by nature interdisciplinary, and students deal with economic, political, social and intellectual problems as part of their programme. Further, our aim is not only to teach history in this broad sense but also to help students develop such skills as analytical thinking and reporting, verbal and written communication, and incisive presentation, skills that win recognition from employers. Openings in corporations looking for men and women of management calibre complement more traditional employment in government, including the foreign service.

Concordia History graduates regularly gain entry into major graduate programmes in Canada and the United States, and also in Europe, as well as into top law schools. Many students have won awards for further study from the Social Sciences and Humanities Research Council and other granting bodies. Such achievements have affirmed the national reputation of the Concordia undergraduate History programme.

### Programmes:

#### Honours in History:

A high level of performance is required to enter and remain in the Honours programme.

- \*6 required credits in European history at the introductory level.
- \*6 required credits in Canadian history at the introductory level.
- \*6 elective credits from surveys of African, Asian, Latin-American or United States history.
- 6 required credits in the nature and practice of historical enquiry.
- 12 elective credits in History at the intermediate or advanced levels.
- 12 elective credits at the intermediate or advanced levels in History or in a related field.
- 12 required credits in research and the Honours essay.
- 30 elective credits in any department.

#### Specialization in History:

- \*6 required credits in European history at the introductory level.
- \*6 required credits in Canadian history at the introductory level.
- \*12 elective credits from surveys of African, Asian, Latin-American or United States history.
- 24 elective credits in History at any level.
- 6 elective credits in History at the advanced level.
- 6 elective credits in a related field.
- 30 elective credits in any department.

#### Major in History:

- \*6 required credits in European history at the introductory level.
- \*6 required credits in Canadian history at the introductory level.
- \*6 elective credits from surveys of African, Asian, Latin-American or United States history.
- 18 elective credits in History at the intermediate or advanced levels.
- \*6 elective credits in a related field.
- 48 elective credits in any department, which may take the form of a major or minor in another department.

#### Minor in History:

- \*6 credits in European or Canadian history at the introductory level.
- 12 elective credits in History at the intermediate or advanced levels.
- 6 elective credits in History at any level.

### Minor and Certificate in Quebec History:

As a minor, this group of courses provides an outline of study for those generally interested in Quebec history. As a certificate, it is particularly useful to teachers at the secondary school and CEGEP levels.

- 6 required credits in Quebec history before and since Confederation.
- 12 elective credits in the history of French Canada, Montreal or English-speaking Quebec.
- 6 credits in a seminar on Quebec or Canadian history.
- 6 elective credits in courses on Quebec offered by the Departments of Economics, Etudes françaises, Geography, Political Science or Sociology.

### Joint Specialization in History and English:

Such a programme may be put together in consultation with the Departments of History and English. 30 credits must be taken in each Department, the remaining 30 credits being electives which may be taken in any department.

### Graduate Programmes:

- M.A. in History (45 credits)
- Ph.D. in History (90 credits)

*\*Students who have been exempted from one or more of these courses on the basis of comparable courses taken in CEGEP will replace them with additional elective credits in history.*

The purpose of the Individually Structured Programme is to make it possible for above-average, well-motivated students who have made up their minds about their long-term goals to put together a programme which, while based on an existing departmental programme (Honours or Specialization), would be adapted to the particular needs of the individual. For example, a student intending to enter a programme in Molecular Biology in a particular graduate school could ensure that his or her undergraduate preparation is most appropriate to that programme; or again, a student in Translation might wish to have a background in a particular area of knowledge for a specific type of job. The possibility of an ISP will not necessarily exist in all departments, and it is not anticipated that more than a few such programmes will be approved in a given year. Approval must be obtained at both the department and Faculty level.

A high level of performance in previous studies is required, and students must maintain that level throughout. The programme will consist of not less than 60 credits, and must be based on a departmental or programme core — usually a major, but in any event not less than 24 credits. In this way students will have no problem in completing a regular departmental programme should they decide not to pursue their ISP.

The programme of study must be worked out with the appropriate adviser at the time of enrollment in the programme, and the proposal must be accompanied by a careful, although not necessarily long, statement of the student's goals, indicating the specific reason for their programme choice. An I.S.P. may be used for either a B.A. or B.Sc. degree.

# Journalism

Programmes in journalism at Concordia are designed to foster professional development along with the acquisition of a liberal undergraduate education. Set in a cosmopolitan metropolis where English and French meet and mix, the programmes provide an unusual opportunity to acquire the professional skills needed to function effectively as reporters or editorial staffers. Much of the instruction is given by practising journalists. Programmes are made up of a combination of lecture, seminar and workshop courses, with emphasis on individual initiative. In order to provide a broad perspective on the media and their operations, reporting and writing workshops are supplemented by courses on the History of Journalism, the Media in Quebec and the legal issues affecting journalists. In addition to the Major and Minor in Journalism, joint programmes are offered with Communication Studies.

## Programmes :

### Major in Journalism :

- 30 required credits in writing, reporting, radio, legal aspects, and the history and state of the media.
- 6 elective credits in Canadian history or politics.
- 3 elective credits in specialist reporting or Quebec affairs.
- 3 elective credits in editing or television news.
- 48 elective credits in any department, some of which could take the form of a major or a minor in another department.

### Minor in Journalism :

- 27 required credits in writing, reporting, legal aspects, and the history and state of the media.
- 3 elective credits in specialist reporting or Quebec affairs.

### Specialization in Broadcast Journalism :

This programme is a combination of courses in Journalism and in Communication Studies. It is designed to educate, at the university level, competent personnel for the expanding news, public affairs and information programming of the electronic media that will be the major journalistic dynamic of the 1980s.

- 21 required credits in Journalism, including writing, reporting, radio, television and legal aspects.
- 12 required credits in Communication Studies, including communication theory, practical seminars in sound film and video, and broadcasting ethics.
- 3 elective Journalism credits in history or state of the media.
- 6 elective Communication Studies credits in sound, film or video at the advanced level.
- 3 elective credits in public affairs radio or television.
- 15 elective credits in Communication Studies or Journalism, six of which may be in a related field.
- 30 elective credits in any department.

### Specialization in Journalism and Communication :

For details of this programme, see Communication Studies (p. 12).

The B.A. Major in Library Studies is designed for those interested in qualifying for work as para-professionals or library associates in a library or information centre. It appeals in particular to:

- people already employed in a library or in library-related work who seek formal training to update their qualifications or to enrich their work experience;
- those employed in non-library occupations in business or the public sector who wish to qualify for work with information resources;
- those whose family responsibilities no longer require their full attention, and want to prepare for a new vocation.

Planned in particular for part-time enrolment, courses are offered in the afternoon or evening, and mainly on the Loyola campus.

### Programme

**B.A. Major in Library Studies** (90 credits). Thirty-six required credits in Library Studies courses and 54 credits in electives, including further courses in Library Studies. Each student will work out his or her personal programme in consultation with the Programme Coordinator.

Those planning to go on to professional studies at the graduate level should also complete a major in another field.

First year required courses are:

Principles of Library Service;  
Organization of Library Services.

Other required courses are:  
Information Services;  
Bibliographic Searching,

Cataloguing and classification;  
Data Processing and Automation;  
Technical Skills — Multi-Media Operation;  
Technical Skills — Collective Control.

Among library-oriented electives are:  
French for Library Studies;  
Research Methodology;  
Computer Applications in Libraries;

Library Service and Work with Children;

Library Service and Work with Young Adults.

There are also courses relating particularly to work in colleges and universities, business, and public libraries.

### Certificate in Library Studies

The Certificate in Library Studies is offered to meet the needs of students who may not wish to fulfill the requirements of a Bachelor of Arts degree. All courses in the Programme are 3-credit courses. Sixty (60) credits are required to complete the Certificate Programme, thirty-six (36) of which consist of Library Studies courses listed above, with twenty-four (24) credits of electives.

### Graduate Programme

A 33-credit Diploma in Library Studies is offered for those who have completed an undergraduate degree in another field.

The courses and programmes of the department provide a balanced exposure to the main branches of mathematics. A student will take some courses which include historical developments and applications in certain areas of mathematics, and others involving current developments in the field. There are both pure and applied mathematics courses, and electives can be chosen to reflect one's main interests.

The honours programme is intended primarily to prepare a student for graduate studies. However, it is usually possible for a specialization or major student with sufficiently high grades to get accepted into graduate work. Students planning a career in business or industry are urged to take courses in applied mathematics and computer science. Areas of potential employment include operations research, statistics, and actuarial positions in insurance.

## Programmes

A certain number of core courses must be taken. When it comes to electives, students can orientate their programmes towards Pure Mathematics, Applied Mathematics, Actuarial Mathematics or Statistics. Mathematics can also be combined with other fields such as Physics, Computer Science or Economics.

Of the 90 credits required to obtain the B.A. or B.Sc. degree, Honours programmes require 66 credits in Mathematics, Specializations 60 and Majors 36. For Honours, a high level of performance is required to enter and remain in the programme. The following programmes are offered:

- B.A. or B.Sc. Honours in Mathematics (66 credits)
- B.A. or B.Sc. Specialization in Mathematics (60 credits)
- B.A. or B.Sc. Major in Mathematics (36 credits)
- B.A. or B.Sc. Honours in Statistics (66 credits)
- B.A. or B.Sc. Specialization in Statistics (60 credits)
- B.A. or B.Sc. Major in Statistics (36 credits)
- B.A. or B.Sc. Specialization in Actuarial Mathematics (60 credits)
- B.A. or B.Sc. Honours in Applied Mathematics (66 credits)
- B.A. or B.Sc. Specialization in Applied Mathematics (60 credits)
- B.A. or B.Sc. Major in Applied Mathematics (36 credits)
  - Minor in Mathematics (24 credits)
  - Minor in Statistics (24 credits)
  - Minor in Mathematics for students in B.A. programmes (24 credits)

## Elective Opportunities

Mathematics being the language of science, other science departments have made mathematics a required part of their programmes, and there are many mathematics courses available as electives, some with few or no prerequisites. These can be taken as ancillary to the student's concentration, or solely for interest. The same applies to arts students. In the social sciences in particular — Sociology, Psychology and Economics — mathematical methods and notation are increasingly important; calculus, statistics, linear algebra and differential equations are particularly useful. Introductory calculus can be taken by an arts student with only a high school mathematics background as university credit. Other courses are available for students of all backgrounds. Arts, commerce or science students who plan to enter an MBA programme later will find the core mathematics courses very helpful.

## Mathematics Co-operative Programme

The Mathematics Co-operative Programme is offered to students who are enrolled in the B.A. or B.Sc. Honours or Specialization in Applied Mathematics or Statistics, or the B.A. or B.Sc. Specialization in Actuarial Mathematics. Work terms will be available in a variety of business, government and scientific settings. The schedule of study and work terms will be found in the section entitled "Institute for Co-operative Education" (p. 43).

## Certificates:

The Department offers a Certificate in Mathematics for teachers at both the elementary and junior secondary level. These programmes are designed for practising teachers.

## Graduate Programmes:

- M.A./M.Sc. in Mathematics (45 credits)
- Master in the Teaching of Mathematics (45 credits)
- Diploma in the Teaching of Mathematics (senior secondary level) (30 credits).

## Modern Languages and Linguistics

The Department of Modern Languages and Linguistics offers courses leading to the degree of Bachelor of Arts with programmes in German, Hebrew, Italian, Russian and Spanish. A student may specialize in a single language or in two, or in one language and another discipline.

Courses are designed both for students who are beginning their language studies and for those who already possess a good knowledge of the language they intend to study. Students may specialize in either language or literary studies. The former include some courses in translation in the case of German, Italian and Spanish.

Linguistics is the science of language, covering the history of language in general and individual languages in particular, and including structure, pronunciation, meaning and sociological aspects.

In addition to the courses offered in the day and evening during the Regular and Summer sessions, the Department organizes academic exchanges, theatrical productions, film presentations, lectures and other activities which enhance the academic, cultural and social life of the community. Summer sessions are sometimes held outside Canada.

### Programmes:

In recognition of the fact that students come to the Department with varying, or even no, former studies in the language, programmes are worked out according to the capacities and needs of the individual. The following programme outlines presuppose no previous knowledge on the part of the student. For those entering with knowledge of the language, the number of required language credits will be reduced and replaced with elective credits in language or literature.

#### Honours in German, Italian or Spanish:

The pattern is the same for each language. A high level of performance is required to enter and remain in Honours programmes.

42 required credits in language, translation and stylistics.

6 required credits in Linguistics.

12 elective credits at an advanced level.

30 elective credits in any department.

#### Major in German, Italian or Spanish:

24 credits in language and translation.

18 elective credits in language or literature.

48 elective credits in any department, which may take the form of a major or minor in another section of the Department or in another department.

#### Minor in German, Hebrew, Italian or Spanish:

24 credits in language and translation.

6 upper-level credits in language or literature.

#### Minor in Russian:

30 credits established in consultation with the Department.

#### Honours in Linguistics:

A high level of performance is required to enter and remain in the Honours programme. Content is as follows:

24 required credits in Linguistics, including morphology and syntax, semantics and phonetics.

6 required credits in non-Indo-European or Comparative Indo-European linguistics.

12 elective credits in Linguistics at the intermediate level.

6 elective credits in Linguistics at the advanced level.

12 elective credits in Linguistics, or an ancient, or modern language, or Philosophy, Psychology or Sociology.

30 elective credits in any department.

#### Major in Linguistics:

18 required credits in Linguistics, including phonetics, phonemics, morphology and syntax.

18 elective credits in Linguistics at the intermediate or advanced levels.

6 elective credits in Linguistics or chosen elsewhere in consultation with the Department.

48 elective credits in any department, which may take the form of a major or minor in another section of the Department or in another department.

#### Minor in Linguistics:

6 required credits in Linguistics.

24 elective credits in Linguistics.

# Philosophy



The study of philosophy lies at the heart of personal education. It is an enriching and challenging pursuit for those who wish to deepen their understanding of themselves, other people and the world. Further, it is a source of great insight into our most serious problems, whether enduring or contemporary. Besides reviews of the classical and modern philosophers, courses are given in such subjects as Human Identity; Business Ethics; Law, Liberty and Human Rights; Philosophy of Education; Philosophy of Science. Also, the study of philosophy is by its very nature inter-disciplinary. Philosophy students develop stimulating programmes of study outside the discipline; many students from other departments take courses in Philosophy.

Philosophy also helps students gain the analytic skills essential for clear and coherent thought and communication. This being a very practical ability, the study of philosophy has proved a valuable foundation for further studies and careers in medicine and psychology, law, public service, and business administration.

Students can take a B.A. with Honours, Specialization, Major or Minor in Philosophy, and all programmes are available on both campuses.

## Programmes:

### Honours and Specialization in Philosophy:

The content of these two programmes is the same. The Honours programme is designed for those planning to go on to graduate work, and requires a high level of performance to enter and remain in it. The Specialization has no performance requirement.

- 24 required credits in Philosophy, including Ethics, Ancient and Modern Philosophy and a final-year seminar.
- 6 elective credits in philosophical problems, critical thinking or philosophy and society.
- 6 elective credits in Logic or Methods of Enquiry.
- 6 elective credits in Medieval or Contemporary Philosophy.
- 6 elective credits in Philosophy of science, Phenomenology or study of a given thinker.
- 12 elective credits in Philosophy, six of which must be at the intermediate or advanced level, while the other six may be in a related field.
- 30 credits in any department.

### Major in Philosophy:

- 6 required credits in Ancient Western Philosophy.
- 6 elective credits in Philosophical Problems or Critical Thinking.
- 6 elective credits in Ethics, Medieval or Modern Philosophy.
- 6 elective credits in Modern or Contemporary Philosophy.
- 12 elective credits in Philosophy.
- 54 elective credits in any department, which may take the form of a major or a minor in another department.

### Minor in Philosophy:

- 6 elective credits in Philosophical Problems — Critical Thinking or Philosophical Classics.
- 18 elective credits in Philosophy.

### Major in Political Philosophy:

- 18 required credits in Political Science, including Political Theory and Contemporary Political Thought.
- 6 elective credits in Philosophical Problems, Critical Thinking or Philosophical Classics.
- 24 elective credits in Philosophy (Political Philosophy, Human Rights, Nineteenth Century, Modern or Contemporary Philosophy, etc.), Political Science (methodology), or Sociology (social theory).
- 42 elective credits in any department, which may take the form of a major or minor in another department.

## Graduate Programme:

### M.A. in Philosophy (45 credits)

The Department also participates, with the Departments of Religion and Theological Studies, in the 30-credit Diploma in Theological, Religious and Ethical Studies.

## Physics

Physics is concerned with understanding the behaviour of matter and energy whether this be at the subatomic or astronomic or astronomical level of size. Physics is fundamental to all the physical sciences. Its interests range from the theoretical possibilities of black holes in space (a concern of astronomy) to the mechanisms wherewith life is sustained in a living organism (a concern of biology).

A physicist must learn and be able to think, must have a good grasp of mathematics as a tool for understanding and in many instances, the skill to conduct experiments using sophisticated instrumentation. A theoretical physicist specializes in the mathematical side of physics while an experimental physicist would be more involved in the use of precision instruments and machines.

Physicists can apply themselves to almost any scientific field of endeavour and thus possess the capability of becoming both designees and users of modern equipment. Because physicists have so often been at the forefront of new discoveries, they tend to be the experts to whom many turn for scientific advice.

The tradition of a physicist doing basic research in a very specialized field is still important.

In addition to teaching basic physics, the Department also trains students in applied areas.

### Programmes :

#### Honours in Physics :

This programme is designed to prepare students for graduate work in physics or in an allied field. A high level of performance is required to enter and remain in the programme. Content is as follows:

- 50 required credits in Physics, including Theoretical Physics, Mechanics, Electricity and Magnetism, Optics, Electronics, Atomic Physics, Thermodynamics, Statistics, Quantum Mechanics.
- 4 elective credits in laboratory work.
- 6 required credits in advanced calculus.
- 12 elective credits in either experimental or theoretical physics.
- 18 elective credits in any department.

#### Specialization in Physics :

This programme prepares students for employment in Physics or an allied field, while still leaving open the possibility of getting into graduate work, although in the latter case a qualifying year might be required. Content is as follows:

- 35 required credits in Physics, including Theoretical Physics, Mechanics, Electricity and Magnetism, Optics, Electronics, Atomic Physics, Thermodynamics and Quantum Mechanics.
- 4 elective credits in laboratory work.
- 6 required credits in Advanced Calculus.
- 18 elective credits in either experimental or theoretical physics.
- 27 elective credits in any department.

#### Specialization in Physics/Marketing :

This is a unique programme, designed to prepare students for a career in the marketing and sales division of a technologically-based company. The physics component provides a fundamental understanding of technology, while the marketing component teaches managerial and business skills with emphasis on marketing. Content is as follows:

- 24 required credits in Physics, including Mechanics, Electricity and Magnetism, Atomic Physics and laboratory work.
- 12 elective credits in Physics, to be selected from a wide choice.
- 6 required credits in Advanced Calculus.
- 3 required credits in Computer Science.
- 6 required credits in Quantitative Methods or equivalent statistics courses.
- 6 required credits in Accountancy.
- 6 required credits in Management.
- 6 required credits in Economics.
- 6 required credits in Marketing.
- 15 elective credits in Marketing.

### Major in Physics:

The Major prepares students for employment which needs a background in Physics as well as in another field such as Mathematics, Chemistry, Computer Science, Geology, Biology or Administration. Content of the programme is as follows:

- 15 required credits in Mechanics, Electricity and Magnetism, Atomic Physics and laboratory work.
- 9 elective credits from a large group of Physics courses.
- 12 elective credits to be chosen with the approval of the Department.
- 54 elective credits in any department, some of which may take the form of a major or minor in another department.

### Minor in Physics:

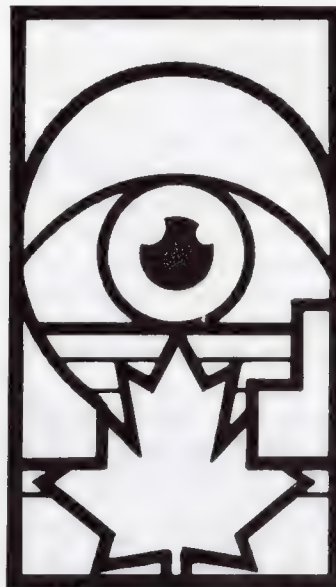
The Minor is intended for students wishing a comprehensive introduction to Physics while they concentrate in another field. It is made up of 24 credits to be chosen in consultation with the Department.

### Certificate in Scientific Measurement:

This 33-credit programme is intended to develop proficiency in measurement, using electronic instruments. Biology, Chemistry and Physics options are available. Since it can be taken part-time, it is of particular interest to people who are employed. Upon completion of this certificate students may apply to enter a degree programme and transfer their credits into it.

### Graduate programmes:

- M.Sc. in Physics (45 credits).
- Ph.D. in Physics (90 credits).



There is increasing public recognition of the fact that the key decisions which affect our lives are wholly, or in large part, political. People are realizing that changes may be achieved only through political action. There has arisen in consequence a growing interest in the study of politics.

Responding to this interest, the programmes and courses offered by the Department of Political Science are designed to serve two separate functions. On the one hand, they are directed to the concerns of students who seek a clearer understanding of contemporary political developments, perhaps as an aid to their own political action. On the other hand, they provide a sound foundation for future specialists in such matters as political science, public policy and public administration, international affairs, the law or communications, as well as for those who intend to go on to graduate studies.

The department is not tied to any particular theory or approach to the discipline. The expertise and interests of faculty members encompass, in particular, political theory, comparative politics, policy making, Canadian and Quebec politics, regional studies, nationalism, federalism, constitutional law, and international relations.

### Programmes:

The courses offered by the Department are divided into five groups: International, Comparative Politics, Canadian, Public Policy and Administration, and Theory. Honours and Major programmes exist in two forms — those requiring a spread of choice over at least three of these groups, and those requiring a concentration, although not exclusive, in one of these fields.

### Honours in Political Science:

The Honours programme is designed in particular for those planning to go on to graduate studies. A high level of performance is required to enter and remain in the programme. Content is as follows:

- 18 required credits in Political Science, including introductory material, History of Political Theory or Ancient Greek Political Philosophy, Roman, Medieval and Renaissance Political Philosophy, and Methodology.
- 42 elective credits in Political Science chosen from at least three of the five groups of courses, at least 18 of them at the advanced level, and at least 12 of these 18 in seminars. Six credits may be taken in a related field.
- 30 elective credits in any department.

The version of the programme with concentration in a special field divides the 42 Political Science electives into two groups, with 18 from at least three of the five groups and 24 in a single group.

### Joint Honours in Political Sociology:

The requirements are as above but with selected Sociology components.

### Specialization in Political Science:

As for Honours (regular version), except that, of the 42 Political Science electives, a minimum of 24 must be taken at the intermediate level and at least 12 at the advanced level. There is no particular performance requirement.

### Major in Political Science:

- 6 required credits of introductory material.
- 36 elective credits from at least three of the five groups, with a minimum of 24 at the intermediate or advanced level.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

The Major may also be taken with concentration in a single field, in which case 24 of the Political Science electives must be chosen from one group, 18 of them at the intermediate or advanced level, the other 6 from the other four groups, at least 6 chosen from a related discipline.

### Minor in Political Science:

- 6 required credits in introductory material.
- 18 elective credits from any of the five groups, at least 12 of them at the intermediate or advanced level.

### Graduate Programmes:

- M.A. in Public Policy and Public Administration (45 credits).
- Diploma in Community Politics and the Law (33 credits).

The interests and areas of expertise of the department are comprehensive, and undergraduates can take courses in such diverse subjects as brain chemistry and behaviour, behaviour disorders and the psychology of exercise.

The department has a strong commitment to undergraduate teaching, and professors are readily available to students for discussion and consultation. Most of the 36 full-time faculty are recipients of individual or team research grants, and this parallel commitment to research helps assure that undergraduate programmes keep up with the rapid advances in psychological data and theory.

A bachelor's degree in psychology does not admit directly to a profession. The minimum requirement for becoming a "licensed psychologist" in Quebec is a master's degree. Our undergraduate programme does not, therefore, train the student to be a psychologist. It does, however, provide a comprehensive background in psychology that prepares a student for further studies at the graduate level in psychology or related fields. Students who do not pursue further studies find that the programme gives them a good background for employment in the community and social services industry, and the civil service.

## **Programmes:**

### **1. Bachelor of Arts:**

#### **Honours in Psychology (B.A.):**

A high level of performance is required to enter and remain in the programme.

- 30 required credits in psychology, including research methods, statistical analysis, the historical perspective, the Honours seminar and Honours thesis.
- 6 required credits from one of learning, sensory and perceptual processes, or cognitive processes.
- 6 required credits in one of physiological psychology, brain chemistry and behaviour, anatomical and physiological bases of motivation and emotion, or animal behaviour.
- 12 required credits in two of developmental psychology, social psychology, normal and abnormal personality, behaviour disorders, or motivation.
- 12 elective credits in psychology at the intermediate or advanced level.
- 24 elective credits in any department.

#### **Specialization in Psychology (B.A.):**

This programme has no specific performance requirement. It is similar to the Honours programme (B.A.), but without the Honours seminar and Honours thesis. The number of electives at the intermediate and advanced levels in psychology is increased to 18, for a total of 60 credits, leaving 30 open electives in any department.

#### **Major in Psychology (B.A.):**

- 15 required credits in psychology, including research methods, statistical analysis and the historical perspective.
- 18 elective credits in psychology from two sets of courses.
  - 9 elective credits in psychology at the intermediate or advanced levels.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

#### **Minor in Psychology:**

- 12 required credits in psychology, including research methods, statistical analysis and the historical perspective.
- 12 elective credits in psychology, from a wide range of courses.
  - 6 elective credits in psychology at the intermediate or advanced levels.

### **2. Bachelor of Science:**

#### **Honours in Psychology (B.Sc.):**

This programme is generally similar to the B.A. programme, with slight variations in the content of the various sets of psychology electives but with the same total of 66 Psychology credits. Of the 24 electives in other departments, at least 15 must be science credits.

A **Psychobiology** option is offered, involving a required 3-credit course in animal biology and 21 elective credits in biology and chemistry from designated groups. Fifteen of these credits take up the science credits, and the remaining six replace Psychology electives.

#### **Specialization in Psychology (B. Sc.):**

This programme is similar to the Honours programme (B.Sc.), but without the Honours seminar, the Honours thesis and the particular performance requirement. The number of electives at the intermediate and advanced levels in psychology is increased to 18, for a total of 60 credits, leaving 30 open electives of which 15 must be science credits.

A **Psychobiology** option is offered, with the same additional credits as those required for Honours.

#### **Major in Psychology (B.Sc.):**

Similar to the Major (B.A.) with a different arrangement of electives.

### **Graduate Programmes:**

M.A. in Psychology (General Experimental) (45 credits).

M.A. Psychology (Applied) (90 credits).

Ph.D. Psychology (90 credits).

Interest in the purposes and management of recreation and leisure has grown greatly in recent years, and so has the demand for men and women trained to work in the field. There is a considerable range of employment possibilities: with federal, provincial and municipal government departments, with educational and other institutions, and in industry. Youth service agencies, camping and outdoor organizations, tourism and hospitality enterprises employ trained personnel. Other opportunities are to be found in research and the design of recreation programmes.

Concordia programmes developed to meet these needs offer a combination of theory and practice, the underlying principle being awareness of the role played by recreation and leisure in a working society. Programmes are multi-disciplinary, in recognition of the wide variety of forms taken by recreation, but all have a compulsory core of recreation and leisure courses. Administration and Programming options are available. Laboratory and field experience is included, and there is a final-year internship.

### Programmes:

#### Specialization in Recreation and Leisure Studies:

- 36 required credits in recreation and leisure, constituting the core and including the 6-credit internship.
- 6 elective credits from a group of courses in industrial and therapeutic recreation, education and leisure counselling.
- 6 credits in research methods courses in psychology or sociology.
- 12 elective credits in: accountancy, economics, finance management and marketing (Administration stream); or applied social science, exercise science, fine arts and geography (Programming stream).
- 30 elective credits in any department.

#### B.A. Major in Recreation and Leisure Studies:

- 18 required credits in recreation and leisure studies.
- 12 elective credits from a group of courses on different aspects of recreation and leisure.
- 12 elective credits in: accountancy, economics, finance management and marketing (Administration stream), or applied social science, exercise science, fine arts and geography (Programming stream).
- 48 credits in any department, some of them possibly taking the form of a major or a minor in another discipline.

Through religion, human beings, from ancient to modern times and from non-literate to highly technological cultures, have attempted to connect their life patterns and social institutions with the ultimate view of "reality". To understand the diverse cultures of the world, it is important to comprehend the religious traditions which influence those cultures.

The Department of Religion offers a variety of courses in the areas of world religions, comparative ethics, and religion and culture. Introductory courses deal with world religions, the history of Judaism and understanding religion. Other courses focus on particular religious traditions (ancient, medieval and modern Judaism, Christianity, Islam, Hinduism and Buddhism) and on particular issues of Religion and Culture (women and religion, contemporary ethical issues, religion and literature, magic and myth, comparative religious ethics, and mysticism). Faculty in the Department complement one another not only in offering expertise in a variety of religious traditions but also in bringing to bear different and varied disciplinary approaches.

The Department provides students with a background for teaching and research within the field as well as within other fields in the humanities and social sciences. A training in religious studies also provides an education which stresses clarity of thought and expression, development of analytical capacities, and better understanding of human behaviour, thought and our social and political institutions.

## **Programmes:**

### **Honours in Religion:**

The main purpose of this programme is the preparation of students for graduate studies. A high level of performance is required to enter and remain in the programme. Content is as follows:

- 12 required credits in Religion, — an introductory course and an Honours seminar.
- 6 credits in either major religious traditions or history of the Jewish people.
- 12 elective credits from a wide range of courses in one of the Asian religions, Christianity or Judaism.
- 6 elective credits from a second of the three areas just mentioned.
- 6 elective credits in personal or societal contemporary ethical issues, women and religion, religion and literature, religion and science, psychological theories of religion, or comparative religious ethics (West/East).
- 6 elective credits in Religion at the intermediate or advanced levels.
- 12 elective credits in Religion or in a related field.
- 30 elective credits in any department.

### **Major in Religion:**

- 6 elective credits in Religion — a general introductory course, major religious traditions, religions of India and South-West Asia, China, Tibet, Japan, religion and art in the East, Islam or Buddhism.
- 6 elective credits in Christianity, Judaism, or religion in Canada.
- 30 elective credits in Religion at the intermediate or advanced levels.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

### **Minor in Religion:**

- 30 credits in Religion chosen in consultation with the Department.

### **Honours in Judaic Studies:**

- 12 required credits — History of the Jewish people and the Honours seminar.
- 6 elective credits in Hebrew.
- 6 credits either in understanding religion or in major world religions.
- 9 elective credits in the Hebrew Bible, or classical, medieval or modern Jewish thought and institutions.
- 21 elective credits in Religion, chosen from a wide range of courses in Jewish history, thought and social organization.
- 6 elective credits in the New Testament, Christian thought and tradition, Islam, or the Human Body in Faith and Practice.
- 30 elective credits in any department.

### **Major in Judaic Studies:**

Content as for the Honours programme, but without the Honours seminar, and only 9 instead of 21 elective credits in the fifth category, for a total of 42 credits. The remaining 48 credits may be taken in any department; some of them may take the form of a major or minor in another department.

### **Bi-university Major in Judaic Studies:**

By agreement between the University and Bar-Ilan University, Ramat-Gan, Israel, students may be admitted to a 120-credit bi-university programme designed to provide the academic base for prospective teachers in Jewish studies at the elementary and junior secondary levels in Canada. Successful applicants may spend up to the first 24 months (i.e. two regular and two summer sessions) at Bar-Ilan. The rest of the requirements for the degree must be completed at Concordia while the student is registered in the Major in Judaic Studies.

### **Minor and Certificate in Judaic Studies:**

As a minor, this group of courses of 30 credits provides an outline of study for those with a general interest in Judaic studies, who wish to use it to complement their major programme in another department. As a certificate, it is useful for teachers wishing to obtain a background in this area. Content is as follows:

- 6 required credits in History of the Jewish people.
- 6 credits either in understanding religion or in major world religions.
- 9 elective credits in the Hebrew Bible, or classical, medieval or modern Jewish thought and institutions.
- 9 elective credits in Religion, chosen from a wide range of courses in Jewish history, thought and social organization.

### **Graduate Programmes:**

M.A. in the History and Philosophy of Religion (45 credits)

M.A. in Judaic Studies (45 credits)

Ph.D. in Religion (90 credits)

Diploma in Theological, Religious and Ethical Studies (33 credits), offered jointly with the Department of Philosophy and of Theological Studies.

Programmes in Russian Studies provide valuable training for students interested in a career in the civil service, in Trade and Commerce or External Affairs, and various other aspects of Canada-USSR relations. Courses in Russian language and literature are combined with courses in Economics, Geography, History, Philosophy and Political Science. Civilization and literature courses are taught in Russian. Students entering with a knowledge of Russian will substitute appropriate courses for the required courses in language. Specialists in the various areas work closely with students in designing programmes to fit their individual needs.

### Honours in Russian Studies:

- 18 required credits in Russian language.
- 6 elective credits in Russian literature and civilization.
- 6 required credits in Geography.
- 12 required credits in Russian history.
- 6 elective credits in Economics (Soviet economy, Marxist economics, comparative economics).
- 12 elective credits from Marxist philosophy, Soviet and East European politics, Russian literature and civilization.
- 30 credits in any department.

### Major in Russian Studies:

- 18 required credits in Russian language.
- 6 required credits in Russian history.
- 6 required credits in Geography.
- 12 elective credits from designated courses in Economics, History, Philosophy, Political Science, or Russian literature and civilization.
- 48 elective credits in any department, some of which may take the form of a major or a minor in another department.

Science and Human Affairs is concerned with the social aspects and structure of science and technology. It emphasizes the interdisciplinary examination of the ethical, cultural, political and environmental problems associated with scientific and technological change.

The programme will serve as preparation for a career which requires a grasp of the social and environmental impacts of science and technology, an appreciation of the nature and implications of scientific research, technological innovation and industrial development.

For students working towards degrees in such areas as Geography, Ecology, Urban Studies, Science or Engineering, courses in Science and Human Affairs provide the opportunity to develop important additional perspectives and capabilities.

There are several streams within the programme. By concentrating in History and Philosophy of Science, for example, students can prepare for graduate work. Another stream examines the impact of science and technology on public policy, for instance, with regard to the environment.

### Programmes:

#### Specialization in Science and Human Affairs:

- 36 required credits in Science and Human Affairs, including introductory material, environmental issues, science and public policy, and advanced study in technology and society and in the history of science, and an integrative seminar.
- 6 elective credits in Science and Human Affairs (case histories in experimental science, astronomy, cosmology and the space age), Geography (environment and man, human geography), or in a Natural Science department.
- 18 elective credits in Philosophy (logic, methods of enquiry, systems theory, philosophy of science), Religion and Science, Sociology of Knowledge, History of the Scientific and Industrial Revolutions, advanced study in the History of Science, or other approved electives.
- 30 elective credits in any department.

#### Major in Science and Human Affairs:

Generally similar in content to the Specialization, but with only 18 required credits in Science and Human Affairs, for a total of 42 credits, the remaining 48 credits being open electives from any department, some of which may take the form of a major or minor in another department.

#### Minor in Science and Human Affairs:

- 12 required credits in Science and Human Affairs, including introductory material and environmental issues.
- 18 elective credits in Science and Human Affairs, including case histories in experimental science, astronomy, cosmology and the space age, or advanced study in technology and society or in the History of Science.



Knowledge of sociology and anthropology enables a student to think analytically and effectively about aspects of human culture and problems such as poverty, prejudice and conflict. It is an important part of a liberal arts education.

The complexities of modern life continually bring us face to face with new issues and changing situations. A trained understanding of society will help us deal with such problems, and an education in Sociology and Anthropology provides a sound perspective for participation in the modern world. It is included in the training programmes of many professions and business enterprises.

Faculty research interests at Concordia include urban and rural community development, industrialization, inter-group relations in business, patterns of deviant behaviour, family and kinship, and ethnic studies.

Each year, the Department invites international scholars to the University to give seminars, classroom talks, and public lectures, providing the occasion for contact and exchange with our students.

As a rule, a professional career in Sociology or Anthropology calls for a graduate degree. Concordia Sociology Honours students go on to graduate programmes in major universities in Canada and abroad. Employment opportunities exist at various levels of government and business: for instance, in statistical research, urban planning, personnel work and market research, etc.

## Sociology and Anthropology (cont'd)

### Programmes — Sociology:

#### Honours in Sociology:

This programme is designed mainly for those planning to go on to graduate studies. A high level of performance is required to enter and remain in the programme. Content is as follows:

- 36 required credits in Sociology, including Classical and Contemporary Theory, Statistics, Research Design and the Honours seminar.
- 24 elective credits in Sociology, chosen in consultation with the Department; some of these may be from a related field.
- 30 elective credits in any department.

#### Specialization in Sociology:

- 24 required credits in Sociology, including Classical and Contemporary Sociological Theory, and Statistics.
- 6 elective credits in Research Methods.
- 6 elective credits from comparative social systems, social class, self and society, or sex roles.
- 18 elective credits in Sociology.
- 36 elective credits in any department.

#### Major in Sociology:

- 12 required credits in Sociology, including an introduction to the field and classical theory.
- 6 elective credits in Research Methods.
- 6 elective credits in comparative social systems, social class, self and society, or sex roles.
- 12 elective credits in Sociology.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

#### Minor in Sociology:

- 12 required credits in Sociology, including an introduction to the field and classical theory.
- 18 elective credits in Sociology.

### Programmes — Anthropology:

Special fields of interest of faculty members include the cultures of Africa, India, China, the Caribbean and the native peoples of North America.

#### Honours in Anthropology:

- 12 required credits in Anthropology — an introductory course and the Honours seminar.
- 6 required credits in Linguistics.
- 15 elective credits in African states and societies, Inuit and North-American Indian social organization, peoples and cultures of India, China, South-east Asia or the Caribbean, or ethnography.
- 9 elective credits in oral literature, art and aesthetics, magic, science and religion, dependency, or culture and society.
- 18 elective credits in theory, symbolic, political, social or economic anthropology or a special topic.
- 30 elective credits in any department.

#### Major in Anthropology:

- 6 required credits of introductory material.
- 12 elective credits in African states and societies, Inuit and North-American Indian social organization, peoples and cultures of India, China, South-east Asia or the Caribbean, or ethnography.
- 6 elective credits in oral literature, art and aesthetics, magic, science and religion, dependency, or culture and society.
- 18 elective credits in theory, symbolic, political, social or economic anthropology, or a special topic.
- 48 elective credits in any department, some of which may take the form of a major or minor in another department.

#### Minor in Anthropology:

As for the Major, but with only six credits in the third group of electives, for a total of 30 credits.

### Joint Programme:

#### Specialization in Anthropology and Sociology:

The programme is designed to provide basic training in the two disciplines, including theoretical, methodological, and substantive aspects of each field. The programme will also provide preparation for graduate study in either sociology or anthropology.

- 18 required credits of introductory material and statistics.
- 6 elective credits in "area" courses in Anthropology, such as Africa, Aboriginal Indians and Inuit, India, China, Southeast Asia, or the Caribbean, or in Ethnography.
- 6 elective credits in oral literature, art and aesthetics, magic, science and religion, dependency, or culture and society.
- 6 elective credits in sociological research methods.
- 6 elective credits from a group of Sociology courses, including comparative social systems, social class, demography, community studies and sex roles.
- 6 open Sociology elective credits at the advanced level.
- 6 credits in either sociological or anthropological theory.
- 12 elective credits from a group of advanced Anthropology courses - symbolic, political, social and economic.
- 24 elective credits in any department.

#### Graduate programme:

M.A. in Sociology (45 credits), focussing upon two major themes: the processes of change within urban environments, and historical and comparative analysis.

## Teaching of English as a Second Language (TESL) :

The activities of the Centre for the Teaching of English as a Second Language (TESL) appeal not only to teachers and students of English as a second language (ESL) but also to those who are interested in taking programmes in language or applied linguistics but who are not necessarily planning a career in teaching. The location of the Centre in a bilingual milieu places it in a unique position. Faculty members receive substantial outside support for research in the increasingly vital areas of second-language learning in Quebec and amongst Canada's native peoples. Graduates currently occupy challenging positions as teachers, researchers, and administrators, working primarily in the Quebec educational system. With the growth of international communication and the increasing use of English as a language of business in various parts of the world, TESL graduates have discovered that their qualifications provide opportunities for employment in a world market.

The Centre also houses a language testing unit, operated by faculty members with recognized expertise in this field.

### Programmes :

**Bachelor of Education in TESL:** This is a 90-credit programme, approved for certification by the Quebec Ministry of Education, and open to both prospective and practising teachers. It prepares graduates for all levels of instruction. Courses are offered throughout the year, including the summer session. The content of the programme is as follows:

- 33 required credits in phonetics, English grammar, language acquisition and teaching methodology, including 6 credits of practice teaching and internship.
- 15 credits selected from a list of TESL courses, or approved language-related courses in other departments; at least 9 must be in TESL.
- 6 credits in Educational Psychology.
- 12 credits from the Department of Education or Psychology (those planning to teach in Quebec must include 3 credits on Education in Quebec and 3 credits in learning and behavioural disabilities).
- 6 credits in English composition.
- 6 credits in English literature, approved by the Centre.
- 12 elective credits from any department.

To be recommended for a licence to teach in Quebec, it is necessary to demonstrate a working knowledge of French.

**Certificate in TESL:** This is a 30-credit in-service programme for experienced teachers, with two different sequences. Sequence I is designed for those who are not native speakers of English, while Sequence II is for those who are native speakers or whose English meets native-user standards. Both sequences include language study, language acquisition, methodology and a practicum.

### E.S.L.:

In addition to preparing teachers, the Centre also offers courses in English as a second language (ESL) at a variety of levels for students in any Faculty whose first language is not English and who require additional training in order to be able to express themselves adequately.

### Graduate Programme:

The Centre offers a programme of advanced study and research in the field, leading to the degree of Master of Arts in Applied Linguistics (45 credits).

## Theological Studies:

The objective of the Department is to investigate the intellectual roots of the Christian religious traditions, especially in the light of current problems and questions about religious meaning and personal destiny. A broad ecumenical view is presented, with emphasis upon Catholic traditions, East and West. While programmes are concerned with the whole Christian tradition, they are mainly presented from a Roman Catholic point of view, and we ask questions on the meaning and truth of that tradition. Members of the Department include specialists in the Old and the New Testaments, in systematic theology, in Christian fundamental theology, in the history and theology of the Christian East, and the history of Christian thought.

Students come not only from CEGEPs, but with experience in social work, business and teaching. They want to broaden their horizons by studying questions related to human destiny and personal commitment.

### Programmes:

Programme structure is flexible, and individual students establish their own programmes in consultation with the Department.

#### Honours and Specialization in Theological Studies:

The Honours programme is designed to prepare students for graduate work in Theological Studies and therefore involves both a broad foundation in the specific areas of theological studies and a special concentration in one particular area as the basis of subsequent advanced study. The Specialization has as its purpose to sketch a coherent view of the extent of theological thought and the nature of theological methodology. Unlike the Honours programme which requires a high level of performance to get into and remain in it, the Specialization has no performance requirement. Content of both programmes is made up of at least 60 credits, distributed as follows:

- 24 credits, six in each of Old Testament, New Testament, systematic and Historical Theology.
- 3 credits in ethics.
- 6 credits in a non-Christian tradition.
- 6 credits in a related field.
- 18-24 credits within a single area (these may overlap with some of the foregoing).

The remaining 30 credits required for the B.A. degree may be taken in any department.

#### Major in Theological Studies:

Like the Specialization, this programme is designed to provide, although on a less extensive scale, a coherent view of the extent of theological thought and the nature of theological methodology.

- 42 elective credits in Theological Studies, established in consultation with the Department.
- 48 elective credits in any department, which may take the form of a major or a minor in another department.

#### Minor in Theological Studies:

- 24 elective credits in Theological Studies.

#### Graduate Programme:

The Department participates in a joint 33-credit Diploma in Theological, Religious and Ethical Studies, in association with the Department of Philosophy and the Department of Religion.

## Urban Studies:

Urban Studies programmes provide a broad introduction to the study of the modern city and its problems. The courses deal with the urban milieu from a multi-disciplinary perspective, involving economics, sociology, geography, political science and history.

Programmes also include fieldwork assignments, and offer the students possibilities for job experience while still at the undergraduate level. This permits the student to select from the wide variety of options available in the urban studies field: regional or local planning; housing and renewal; transportation; industrial and commercial location analysis; environmental impact studies; participatory research, etc. It also provides contacts for potential employment after graduation and opportunities to prove one's aptitude to learn by experience. A good basis is also established for those planning to go on to graduate studies and research. A number of graduates have been accepted for graduate study in urban planning and other fields at universities in Canada, the United States and Great Britain.

## Women's Studies:

### Programmes:

#### Honours in Urban Studies:

A high level of performance is required to enter and remain in this programme. Content is as follows:

- 18 required credits in Urban Studies, including the preparation of research policy papers.
- 6 required credits in Political Science (urban politics)
- 6 elective credits in Political Science (introductory course or Canadian Government and Politics).
- 6 required credits in introductory Economics.
- 3 elective credits in Economics (environment, urban or natural resources).
- 12 required credits in Urban Geography.
- 6 elective credits in Sociology (research methods and statistics).
- 9 elective credits in Sociology (Urban Regions and Community Studies).
- 24 elective credits in any department.

#### Specialization in Urban Studies:

This programme is generally similar in content to the Honours programme, but without the 12 credits in Political Science. Six elective credits must be taken from a wide range of disciplines, for a total of 60 credits. The remaining 30 credits are electives which may be taken in any department.

#### Major in Urban Studies:

- 18 required credits in Urban Studies.
- 6 required credits in introductory Economics.
- 6 required credits in Urban Geography.
- 6 elective credits in Sociology (research methodology, statistics).
- 3 elective credits in Economics (environment, urban or natural resources).
- 3 elective credits from a wide range of disciplines.
- 48 elective credits in any department, some of which may take the form of a major or a minor in another department.

#### Minor in Urban Studies:

- 6 required credits in Urban Studies.
- 24 elective credits, chosen from the courses in Urban Studies, Economics, Geography, Political Science and Sociology listed under the Honours heading.

Responsibility for the Women's Studies programmes rests with the Simone de Beauvoir Institute and fuller details will be found under that heading. For your convenience, programme content is as follows:

#### Major in Women's Studies:

- 12 required credits in Women's Studies, including Historic Attitudes and Recent Approaches to Woman's Identity and Image, and a series of two interdisciplinary seminars.
- 3 credits in Simone de Beauvoir Institute Seminar.
- 3 elective credits in Women's Studies, in Women in Modern Society or a selected topic.
- 21 elective credits from a wide range of woman-oriented courses in a dozen different departments as well as courses in Women's Studies or Simone de Beauvoir Institute seminars.
- 51 elective credits in any department, some of which may take the form of a major or minor in another department.

#### Minor in Women's Studies:

Content is similar to that of the Major, but with only 9 elective credits instead of 21, for a total of 27 credits.

#### Certificate in Women's Studies:

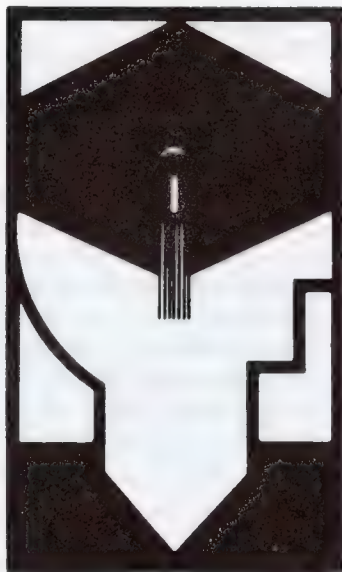
Content is generally similar to that of the major, but without the designated Women's Studies electives, and with 15 elective credits rather than 21, for a total of 30 credits.

## Colleges:

The Colleges of the Faculty of Arts and Science group together faculty and students who share a common philosophy of education of a particular community service orientation. Each College has, at its core, a group of dedicated faculty members whose major responsibility is personalized instruction and academic guidance. These faculty members, called the College Fellows, come from many different University departments, ensuring a diversity of opinion and expertise. Some of the Colleges offer a small number of their own courses while others offer a sequence of interrelated seminars that forms an academically challenging core curriculum.

Each of the Colleges serves as a focus for co-curricular activity and as a centre for advising students. Each believes in careful planning of the student's academic programme in the light of its approach to education.

Regardless of the particular orientation of a College, all students enrolled in them must complete a specific department-based (or interdisciplinary) programme (Honours, Specialization or Major). The Centre for Mature Students, however, has a slightly different function, in that it is designed to help mature entrants through the initial stages of their return to studies.



## Centre for Mature Students

People of all ages decide to go to university these days. Young adults find after their first years in the work force that they need university training. Women, whose children are growing up, can begin to prepare for or continue a career or may just wish to start studying again. Older people, perhaps nearing retirement, seek new opportunities and interests. Concordia University is famous for its attention to the needs of these mature students, whether they study full time or part time. Courses start from before nine in the morning finishing after ten at night.

One thing we have learned over the years is that older students, coming to university for the first time or even returning after a long absence, appreciate special academic guidance. For this reason the Faculty of Arts and Science has established a Centre for Mature Students. The Centre has a "home base" on each campus, with a secretariat, interviewing facilities and a lounge. The aim of the Centre is twofold:

- a) to provide mature entrants with the academic guidance and moral support they need for full participation in the mainstream of university life; and
- b) to maintain Concordia's tradition of involvement in the field of adult education and help develop its ability to meet the challenges of growth in this sector in the coming decades.

In general, mature entrants are just students — like everyone else. They attend the courses and take up whatever other activities appeal to them. They have their own advisory service in the Centre for Mature Students, and students in the mature student programmes of the Faculty of Arts and Science automatically become members of the Centre.

### General Information about Mature Entry

In keeping with the traditional policy of the University towards older students, Mature Entry is designed to enable individuals who are twenty-one years of age or older, and who have not satisfied the normal academic admission requirements, but have demonstrated potential, to undertake undergraduate programmes. The University assumes that the age of mature entrants will have allowed them to acquire informally some of the general education given to younger students at the collegial level. Entry requirements therefore concentrate on the knowledge and skills which will be needed to undertake a given programme of specialization. This normally involves 18 credits of work over and above the 90 credits needed to obtain most bachelor's degrees (30 credits normally constitute a year's work for a full-time student).

# Institute for Co-operative Education

## Programme requirements:

Students must consult with the Director of the Centre for Mature Students before registering.

### Arts and Education:

For entry to all degree and certificate programmes in Arts and Education:

18 elective credits in any department.

Some or all of these 12 elective credits are specified in the following cases:

- Geography: 6 unspecified credits in Mathematics.  
Mathematics (B.A.): 9 specified credits in Mathematics (or more if previous preparation is weak).  
Psychology (B.A.): 6 specified credits in Psychology.  
3 specified credits in Biology.  
3 approved credits in Mathematics (preparation for statistics).

### Science:

For those entering degree programmes in Science more than 18 credits are designated, but the total number required for the degree is still 108 (90 plus 18). The following are required:

- 6 specified credits in Chemistry.  
9 specified credits in Mathematics (or more, if previous preparation is weak).  
8 specified credits in Physics.  
3-4 elective credits in Biology, Geology or Physics.

Co-operative education is an educational process in which academic study terms alternate with work terms in industry to give students practical, paid, on-the-job experience in the area of their choice while continuing their progress towards a degree.

Essentially, it is a system that integrates the mutual interest of employers, educators and students in the attainment of common goals.

The Co-operative Education concept as practised in a number of Canadian universities has been outstandingly successful in developing career opportunities. A recent survey showed that major companies that have participated in co-op programmes now express a preference for hiring co-op graduates, especially those seeking to recruit candidates with potential for management positions. The Institute for Co-operative Education makes the Co-operative format available in various Honours and Specialization programmes in chemistry, economics and mathematics.

## Schedule

Activity flow-chart for a single group of students in the Co-operative format:

Year	Fall Sept.-Dec.	Winter Jan.-April	Summer May-Aug.
1	1st year Campus Term	1st year Campus Term	1st year Work Term
2	2nd year Campus Term	2nd year Work Term	2nd year Campus Term
3	2nd year Work Term	3rd year Campus Term	3rd year Work Term
4	3rd year Campus Term	3rd year Work Term	

It is the intention of the Institute to apply the Co-op format to other disciplines as this becomes feasible.

Application must be made for admission to full-time study in a departmental programme (e.g. Specialization in Analytical Chemistry) and for admission to the Institute at the same time.

The Co-op format requires six academic terms interspersed with four work terms — a total commitment of forty months over four years. The actual sequence is shown below. Accepted applicants enrol as regular full-time undergraduates in the programmes of their choice and are subject to the academic regulations that apply to their programmes.

## Programmes offered:

Chemistry  
Economics  
Mathematics

The goal of Liberal Arts College is to ensure development of an informed and literate critical consciousness. Liberal Arts College stresses that students are not properly educated if they can leave university without a critical awareness of the nature and development of Western society and culture over time; without an informed familiarity with art and music, or the major expressions of our literary, philosophical, and religious traditions; without an understanding of the modern social sciences and their relation to contemporary problems; without, finally, some intelligent notion of the nature and social consequences of science and technology.

Liberal Arts College is for students who think that education is about, and for, life. It views the acquisition of informed knowledge and critical skills as the indispensable precondition for meaningful action in the world. In this sense university work in Liberal Arts College is the beginning, not the end, of one's education. Applicants must have achieved a high level of performance in their previous studies and must present themselves for a personal interview.

#### Core Curriculum:

All students have to complete, in addition to their Honours, Specialization or Major in a department in the Faculty, the core curriculum of the College. This core curriculum, required of all students regardless of disciplinary focus or departmental affiliation, comprises forty-two credits (seven seminars) of the ninety credits required for completion of the bachelor's degree. These carefully constructed and interrelated

seminars are available only to College students. Core seminars stress work in the major areas of human knowledge and understanding — Humanities, Social Sciences, Art, Music, and scientific thought. Given in a set sequence, they are bound by a common concern with the nature and development of Western Society and Culture, from antiquity to the present. Core courses also stress writing and research skills, and use of a second language. They involve work in major primary and interpretive materials and the development of sophisticated analytic approaches. For full-time students the sequence of courses (each of them worth six credits) is as follows:

- Year 1    Structure and Dynamics of Western Civilization  
             Modes of Expression and Interpretation  
             Art and Aesthetic Experience
- Year 2    Contemporary Civilization  
(two of:) The Sciences in Society  
             Contemporary Modes of Expression and  
             Interpretation
- Year 3    Integrative Seminar  
(and one of the courses listed in Year 2, above)

#### Major in Western Society and Culture:

With College permission a student completing the core curriculum of 42 credits, together with an additional 24 credits in one department of the Faculty, may graduate with a Major in Western Society and Culture. In that case a further 24 elective credits in any department will be required to obtain the bachelor's degree.

The College has adopted an approach which is *empirical*, *interdisciplinary*, and *value-oriented*. This approach is *empirical* in the sense that all knowing begins with inquiry about experience of the world and of ourselves as subjects. Resulting judgements of truth and value must be verified through a methodologically precise appeal to this experience. The approach is *interdisciplinary* because central and ultimate issues of human life are involved in all the disciplines of knowledge; and because many of these issues can be understood only from the perspectives of several such disciplines. It is *value-oriented* because the objects of knowledge are also objects of care and love; and because human living does not end in knowing. Human inquiry extends to evaluative knowledge, decision-making, involvement, commitment.

Following this approach, Lonergan students specialize in departmental programmes of their choice, and are encouraged to deepen this focussed study as much as possible. Within the College they use their departmental study as a resource in working with students and Fellows from other departments on a common intellectual project. The project is selected by the College Council each year. It consists of reading, understanding, and personally coming to terms with a great classic, the work of a thinker who has marked and shaped our civilization. The experience of sharing such projects over several years enables Lonergan students to become aware of their own intellectual horizons and values, and

## School of Community and Public Affairs

to encounter broader and deeper possibilities. Progress in departmental study is integrated with progress of a more subjective nature. In this strategy, conversation becomes a continuous and pleasurable process of intellectual growth.

In addition to meeting the Faculty degree requirements by completing a departmental or interdisciplinary programme, Lonergan students must each year take the 3-credit College Seminar, for a total of 9 credits. And they must add a further 6 credits in Lonergan College courses at some point during their 3 years at Concordia.

The first aim of the School of Community and Public Affairs is to prepare students for employment either in the public service — municipal, provincial, national or international — or as public affairs specialists in business or communications. It offers a valuable training to those who intend to do graduate work in public affairs or administration. Also, it has a special appeal to people with a personal interest in political or community work.

Vocational experience and scholarly values combine to help develop students who are both well educated in a broad sense and trained to take up a particular kind of career.

Students who enrol in the School benefit from its unique combination of the following components:

1. an internship programme through which students receive credit for working in a public affairs-related job;
2. a bilingual environment;
3. the combination of a multidisciplinary programme with a degree in their chosen discipline;
4. a collegial setting for the discussion and study of many aspects of community and public affairs.

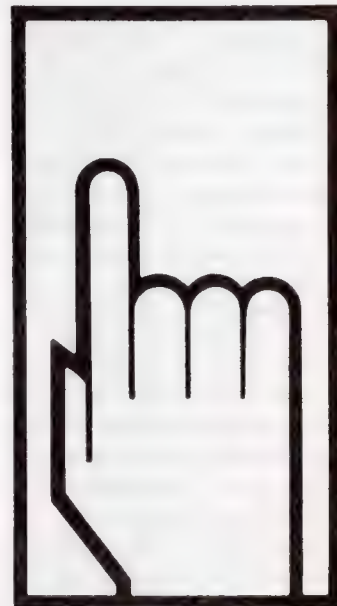
### The core:

In addition to meeting Faculty requirements by completing a departmental or interdisciplinary Honours, Specialization or Major, students in the School must take the following 36 credits:

- 6 specified credits in Economics (introductory).
- 6 specified credits in Canadian History.
- 6 specified credits in Political Science (Canadian government and politics).
- 6 specified credits in Sociology (introductory).
- 6 credits in modular seminars offered by the School.
- 6 credits of internship and the research project associated with it.

Students normally register in an Arts and Science programme such as Communication Studies, Economics, History, Journalism, Political Science or Sociology as well as in the School. In addition to taking the courses prescribed by the School of Community and Public Affairs, they must also take those required for a major, honours, or specialization in their chosen department.

One advantage of the School is that the house it occupies on the Sir George Williams campus provides an excellent environment for out-of-class discussion and meetings, for exchanges between students, faculty and visitors. The facilities include a common room, reading room and documentation centre, and seminar room.



Science College is designed to provide a setting which makes it possible to combine programmes of specialization leading to the B.Sc. degree with a broader awareness of the nature of science and an acquaintance with the style and content of the various scientific disciplines. For this purpose, the College offers a 30-credit core of its own courses. It has its own premises where students can talk amongst themselves and with professors. It organizes various events to increase students' understanding of science, and invites scientists to visit the University to meet students in the College. College membership may be extended to students specializing in journalism or computer science.

Taking a degree as a member of Science College is academically demanding, involving concentration in one discipline and a critical investigation of other aspects of science. Applicants are considered on the basis of their academic record and a personal interview and are encouraged to submit an example of recent work relating to an aspect of science.

### The core:

- 3 credits in multidisciplinary study.
- 9 selected credits in surveys of scientific disciplines.
- 12 required credits of independent study, involving formal written reports.
- 6 credits in the historical, philosophical and social aspects of science.

In addition all students in the College must attend weekly non-credit seminars.

Founded to develop understanding of the historical and the contemporary role of women in society, the Simone de Beauvoir Institute combines an academic base in Women's Studies with a supportive environment aimed at helping women to discover and develop their personal, social and intellectual potential.

Membership in the Institute is open not only to those who plan to take a Major, Minor or Certificate in Women's Studies, but also generally to students registered in any programme or department of the Faculty of Arts and Science or another Faculty.

The Institute has its own premises and meeting place on the Sir George Williams campus and a centre on the Loyola campus. There are regular discussion groups, workshops and lectures. The co-curricular life is most important. Also, there exist opportunities to collaborate with women's organizations outside the University on research projects and other joint ventures.

### The Women's Studies Programme

Women's Studies on the one hand view the study of women as its primary concern and on the other brings the women's perspective to the world.

The academic content comes from two sources. Firstly, a large body of documentation about women and their position from earlier periods is being rediscovered. These texts are being gathered and evaluated to see what knowledge they can give us about women in the past and what revisions in our presently accepted knowledge have become necessary. Secondly, stimulated by this new consciousness, much research has been generated recently in sociology, psychology, anthropology, psychiatry and other disciplines.

Women's Studies has an interdisciplinary character. Most courses relate to a particular discipline, but there is also a core of interdisciplinary courses, administered by the Institute. Thus the programme is designed both for students who wish to combine Women's Studies with, for instance, sociology, psychology, history, political science, literature, or religion, and for those who wish to specialize in Women's Studies (see *Women's Studies*, p. 41).

## Faculty of Arts and Science:

Department	Related Programmes	Advisers
Applied Social Science	Applied Social Science	879-4194
	Social Welfare	879-8479
	Community Service	879-8017
	Family Life Education	
Biological Sciences		879-2856
Chemistry		
Classics		482-0320, ext. 469
Communication Studies		482-0320, ext. 275
Economics		879-5845
		482-0320, ext. 670
Education	Education	879-4535
	Adult Education	482-0320, ext. 402
English		879-5901
		482-0320, ext. 534
Etudes Françaises		879-5881
		482-3020, ext. 584
Exercise Science		482-0320, ext. 742
Geography		879-5880
		482-0320, ext. 794
Geology		482-0320, ext. 328
History		879-5893
		482-0320, ext. 465
Interdisciplinary Studies	Canadian Studies	482-0320, ext. 463
	Individually Structured Programmes	879-2867
	Russian Studies	879-4297
	Science & Human Affairs	879-8142
	Urban Studies	879-8507
Journalism		482-0320, ext. 421
Library Studies		482-0320, ext. 324
Mathematics		879-5930
		482-0320, ext. 362
Modern Languages		879-4192
		482-0320, ext. 292
Philosophy		879-7262
		482-0320, ext. 433
Physics		879-5915
Political Science		879-4193
		482-0320, ext. 472
Psychology		879-4166
		482-0320, ext. 497
Religion		879-4194
Recreation & Leisure Studies		482-0320, ext. 750
Sociology & Anthropology		879-5944
		482-0320, ext. 208
Teaching of English as a Second Language (T.E.S.L. Centre)	Teaching of English as a Second Language	879-5949
	English as a Second Language	879-7241
Theological Studies		482-0320, ext. 552

## Faculty of Arts and Science:

### University Colleges

### Advisers

Centre for Mature Students

879-7271  
482-0320, ext. 263

Institute for Co-operative Education

Chemistry

879-4161

Economics

879-5853

Mathematics

879-5829

Liberal Arts College

879-8051

Loneragan University College

482-0320, ext. 697

School of Community and Public Affairs

879-8507

Science College

879-4160

Simone de Beauvoir Institute

879-8521

Women's Studies

482-0320, ext. 208

### Academic Advising

S.G.W. 879-5906  
Loyola 482-0320, ext. 227

### Admissions

S.G.W. 879-4280  
Loyola 482-0320, ext. 567

### Liaison Office

482-0320, ext. 245



## Faculty of Arts and Sciences

### University Colleges

### Address

College of Arts and Sciences

418-4275

College for Co-operative Education

418-4275 ext. 201

Faculty

418-4275

Graduate

418-4275

Mathematics

418-4275

Visual Arts College

418-4275

University Community College

418-4275 ext. 201

College of Communications and Public Affairs

418-4275

Science College

418-4275

College of Business Administration

418-4275

College of Arts and Sciences

418-4275

### Executive Office

514-343-4275

Telex 452-0121, ext. 121

### Students

514-343-4275

Telex 452-0121, ext. 121

### Library

514-343-4275